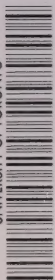


FACULTY OF DENTISTRY LIBRARY
UNIVERSITY OF TORONTO



3 1761 03924587 3

UNIV. OF
TORONTO
LIBRARY



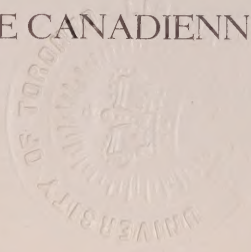
Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

<https://archive.org/details/31761039245873>

Med

The Journal of the
CANADIAN DENTAL ASSOCIATION

Le Journal de
L'ASSOCIATION DENTAIRE CANADIENNE



369221
22:1:39

The official organ of the Canadian Dental Association.
Owned and published by the Association.

.

Office of Publication

CONSOLIDATED PRESS, LIMITED, 73 RICHMOND STREET WEST, TORONTO

VOLUME 4 - - - - - - - 1938

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1938-1939

PRESIDENT

Stephen A. Moore.....London, Ontario

PRESIDENT-ELECT

W. W. Woodbury.....Halifax, N.S.

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

Stephen A. Moore (Chairman).....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
W. H. Woodrow.....Brockville, Ontario
R. L. Pallen.....Vancouver, B.C.
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

Stephen A. Moore (Chairman).....London, Ontario
R. L. Pallen.....Vancouver, B.C.
C. M. Fletcher.....Lethbridge, Alberta
G. L. Cameron.....Swift Current, Saskatchewan
M. H. Garvin.....Winnipeg, Manitoba
W. H. Woodrow.....Brockville, Ontario
G. L. Prestien.....Galt, Ontario
Edward T. Bourke.....Montreal, Quebec
Ernest Charron.....Montreal, Quebec
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. A. McMurdo.....Summerside, P.E.I.

CHAIRMEN OF COMMITTEES

Dental Legislation.....J. Stanley Bagnall, Halifax, N.S.
Dental Health.....Harry S. Thomson, Toronto, Ontario
Dental Education.....A. D. A. Mason, Toronto, Ontario
Public Relations.....J. S. Lapp, Toronto, Ontario
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Canadian Army Dental Corps.....Ira Hamilton, Ottawa, Ontario
Journal.....G. Vernon Fisk, Toronto, Ontario
Research.....Andrew J. McDonagh, Toronto, Ont.
Benevolence.....To be appointed
Ethics.....G. L. Prestien, Galt, Ontario
Indian Affairs.....Howard MacDonald, Saint John, N.B.
Constitution and By-Laws.....Robert Leslie Pallen, Vancouver, B.C.
Nomenclature.....Gerald Franklin, Montreal, Quebec
Insurance.....A. E. Higgins, Toronto, Ontario
Necrology.....C. M. Fletcher, Lethbridge, Alberta
Archives.....J. Stanley Bagnall, Halifax, N.S.

OFFICERS OF THE JOURNAL OF THE CANADIAN DENTAL ASSOCIATION LE JOURNAL DE L'ASSOCIATION DENTAIRE CANADIENNE

Journal Committee

G. VERNON FISK, D.D.S., (Chairman), Toronto, Ontario
GERALD FRANKLIN, D.D.S., Montreal, Quebec
ERNEST CHARRON, D.D.S., Montreal, Quebec

Editors

M. H. GARVIN, D.D.S., Winnipeg, Manitoba - - - - - Editor-in-Chief
ALCIDE THIBAUDEAU, D.D.S., A.I.D.O., Quebec, P.Q. - Rédacteur Section Française

Associate Editors

D. Trevor Waye, D.D.S., Charlottetown, Prince Edward Island
R. G. Ritchie, D.D.S., Halifax, Nova Scotia
J. F. Edgecombe, D.D.S., Saint John, New Brunswick
F. W. Saunders, D.D.S., F.I.C.A., Montreal, Quebec
T. R. Marshall, D.D.S., Toronto, Ontario
J. F. Morrison, D.D.S., Winnipeg, Manitoba
F. C. Harwood, D.D.S., Moose Jaw, Saskatchewan
John Clay, D.D.S., Calgary, Alberta
J. S. Bricker, D.D.S., Vancouver, British Columbia

Empire Correspondents

J. B. Parfitt, M.R.C.S. Eng., L.R.C.P. (London), L.D.S., Eng., Reading, England
J. Lewin Payne, O.B.E., L.R.C.P. (London), M.R.C.S., L.D.S. Eng., London, England
J. Menzies Campbell, D.D.S. (U. of T.), L.D.S., F.R.S.E., Glasgow, Scotland
Percy A. Ash, D.D.S., F.A.C.D., F.F.I.A., Sydney, Australia
J. Reid Burt, L.D.S.R.C.S. (Edin.), University of Otago, Dunedin, New Zealand
H. Goldin, L.D.S.R.C.S. (Eng.), D.D.S. (Michigan), Pretoria, South Africa
R. Ahmed, D.D.S., F.I.C.D., Calcutta, India

Foreign Correspondents

John E. Gurley, D.D.S., San Francisco, California
Lon W. Morrey, D.D.S., Chicago, Illinois
Jerome D. Trier, D.D.S., New York City

Comité de Rédaction

<i>Gérard Baillargeon, D.D.S.</i>	<i>Gérard de Montigny, D.D.S.</i>
<i>Paul Geoffrion, D.D.S., A.I.D.O.</i>	<i>Yves Lafleur, D.D.S.</i>
<i>P. E. Lussier, D.D.S.</i>	<i>A. D. Milot, D.D.S.</i>
<i>P-E. Poitras, D.D.S.</i>	<i>Jules Tetreault, D.D.S.</i>

Rédacteurs—Correspondants

Marcel Darciassac, M.D., Paris, France
Henri Villain, D.D.S., Paris, France
Albert Joachim, D.D.S., Bruxelles, Belgique
François Ackermann, M.D., Genève, Suisse
Jules Thébaud, D.D.S., Port-au-Prince, Haiti

Business Administration

STEPHEN A. MOORE, D.D.S., London, Ontario - - - - - Business Manager
H. R. ROLLS, Toronto, Ontario - - - - - Advertising Manager

Index to Volume 4—1938

FRONTISPICES	Page		Page
William J. Lea, D.D.S.	2	The Fournet-Tuller Application of New Mechanical Principles to Produce Full Lower Dentures with Stability Surpassing the Best Modern Upper Dentures—Sidney C. Fournet and Charles Shepard Tuller	144
Ernest Charron, D.D.S.	64	The Development and Clinical Application of the Alkaline Local Anaesthetic Solutions—A. C. Ahrens	199
R. S. Wolcott, D.D.S.	126	The Future of Periodontia for the General Practitioner—S. Cripps	253
H. J. Merkle, M.D.S.	184	The Open Door—W. A. Moline	302
F. C. Harwood, D.D.S., L.D.S.	238	The Modern Program for Prevention of Dental Disease—John Oppie McCall	615
Harold W. Hoag, D.D.S., L.D.S.	294	What Report Should a Physician Expect from a Dentist?—George A. Morgan	295
Stephen A. Moore, D.D.S.	350	What Report Should a Dentist Expect from a Physician?—George S. Young	300
Charles Nelson Johnson, L.D.S., D.D.S., M.D.S., M.A., LL.D., F.A.C.D.	396	What Effect Upon General Health Have Dental and Periodental Lesions—A. Almon Fletcher	401
C. H. Barr, D.D.S.	438	What Effect Upon General Health Have Dental and Periodental Lesions?—Edmund T. Guest	403
W. W. Woodbury, B.Sc., D.D.S.	496	What is the Dentist's Responsibility in Regard to his Patient's Nutrition?—T. L. Marsh	439
Thomas R. Marshall, D.D.S.	554	What is the Dentist's Responsibility in Regard to his Patient's Nutrition? — Frederick F. Tisdall	441
Edgcombe, J. F., D.D.S.	614	What Dental Conditions Influence Mental Health—E. P. Lewis	443
		What Dental Conditions Influence Mental Health—Glenn T. Mitton	446
		EDITORIAL SECTION	
MANUSCRIPTS		C.D.A. President Tours Western Canada	40
Analgesia—J. M. Shultis	21	C. N. Johnson, 1860-1938	413
A Survey of Dentistry in China Before the Present Sino-Japanese War — Ashley W. Lindsay	70	Canadian Dental Fall Clinics	591
A Submission to the Royal Commission on Dominion-Provincial Relations, Canada 1938 — Canadian Dental Association	244	Further Problems for Consideration	529
Children's Dentistry for the General Practitioner — J. S. Bagnall	3	Horace Wells Dishonoured in "Triumph Over Pain"	642
Chronic Arthritis—A. Almon Fletcher	65	Magazines for the Dental Reception Room	215
Canadian Dental Association—President's Report	497	Pacific Coast Dental Conference	469
Dentistry for Children—S. A. MacGregor	74	Public Dental Clinics	373
Dentistry for Children—L. Olive Cole	191	Rowell Commission	165
Development and Structure of Dental Mechanism—G. Vernon Fisk	397	Self-Interest	323
Development and Structure of Dental Mechanism—Gordon C. Cameron	399	St. Louis as a Convention Centre	639
Dentistry for Children of Pre-School Age—Thomas R. Marshall	555	To Know is not Enough	37
History of Medicine—T. H. Leggett	127	The Forgotten Man in Dentistry	101
Health Services to Children Across Canada, 1936-1937—Harry S. Thomson	622	The Craze for Luxuries	163
Immediate Denture Insertion for Radical Cases — George A. Morgan	185	The Ideal Canadian Dentist, by F. C. Harwood	267
Infection of the Jaws—Fulton Risdon	239		
It Can't Happen Here?—S. G. McCaughey	257	PROBLEMS IN PRACTICE	
Impression Technique for Edentulous Mouth—Irvin H. Ante and Frank Martin	500	Caries in the Teeth of a Patient under Three Years	458
Jaw Clinics—J. W. Gerrie	188	Difference in Doctors' Fees	208
Motor Casting Machine—Orman Whitman	305	Fee Made to Relatives, Professional Men and Their Relatives	364
Nutritional Influence on Teeth—Frances Krasnow	135	Infection Around a Partially Erupted Lower Third Molar	261
Nutrition Today with Special Reference to the Vitamins—Christian P. Segard	564	Mouth Breathing	27
Pregnancy and Dental Health—Wallace Graham	351	Replacing Stolen Dentures	89
Pregnancy and Dental Health—A. E. Higgins	356	Unfavourable Attitude towards Ionization	157
Problems in Dental Practice—William G. S. McLennan	448	Unstable Denture	512
Physical Factors to be Considered in Making a Dental Diagnosis—Clayton A. Swanson	506		
Progress in Dentistry—Paul R. Stillman	627	PRACTICE MANAGEMENT	
Report upon Public Dental Health Education, by T. L. Marsh	16	A Housewife Looks at Your Office Entrance and Reception Room	85
Report of Committee on State Dentistry of the Canadian Dental Association, by John S. Lapp	450	A Treatise on Dental Office Practice—W. N. Miller	308, 361, 407, 454
Report of Committee on Dental Education of the Canadian Dental Association, by Wm. W. Woodbury	451	Common Sense in Office Decoration—Catharine Howard	631
Report of the Necrology Committee of the Canadian Dental Association, by Howard W. MacDonald	453	Economic Aspects of Dental Practice—W. C. Stillson	583
Report of the Research Committee of the Canadian Dental Association, by Andrew J. McDonagh	515	Getting the Greatest Good Out of the Office Telephone	25
Report of Public Dental Health Committee of the Canadian Dental Association, by Harry S. Thomson	517	Handling of Children in the Dental Office—Walter C. McBride	154
Report of Legislative Committee of the Canadian Dental Association, by J. Stanley Bagnall	520	Practical Suggestions for Success in Practice—S. Joseph Bregein	259
Report of the Military Committee of the Canadian Dental Association, by F. M. Lott	573	Successful Dentists Are Always Good Business Men—George Wood Clapp	523
School Dental Clinics—R. S. Rose	358	The Art of Telephoning for Dentist and Assistant	88
The Electrodeposition of Indirect Inlay Models —Roy G. Ellis	6	The Other Fellow	206
The Hidden Treasure—W. A. Dvorak	14	The Man Over Forty	633
The Royal College of Dental Surgeons of Ontario and The Canadian Dental Association—E. C. Veitch	133		

Index to Volume 4

THE FORUM	Page
A Comparison of Crude and Refined Sugar and Cereals in their Ability to Produce in Vitro Decalcification of Teeth	30
And We Think We Are Growing Old	266
Another Pavlov Experiment	370
A Questionnaire	463
Bureau for Dental Information	322
Bacteriological Survey of Telephone Instruments under Various Conditions of Use	528
Calcium Therapy in Dentistry	30
Correlation of Clinical Tests with Microscopic Pathology of the Dental Pulp	98
Caries	98
Canned Foods	371
Concerning the Vitality of Calcified Dental Tissues	586
Calcium Metabolism and Teeth	587
Dental Relics	31
Dental Health Education	213
Dentist and Physician	315
Dental Health Education	525
Diet	590
Experiences with Elast Electrical Centrifugal Porcelain Cast	264
Effects of Pregnancy, Mouth Acidity and Age on Dental Caries	317
Elimination of Parodontal Infection	466
Effects of Daily Use of Flavoured Sodium Perborate as a Dentifrice for a Six Months' Period	526
Educational Propaganda	635
Fresh, Raw and Cooked Foods	371
"Group Medicine": An Experiment in "Co-operation" by U.S. employees	34
General Anaesthesia in Dentistry	159
Health Insurance	316
Habits and Their Control During Childhood	316
Horizons Beyond	368
Interesting Radiogram and Case History from Alberta	97
Interesting Case of Denture Irritation	264
Inflation—And What To Do About It	460
If the Shoe Fits	637
Leukoplakia	319
Lip Biting	636
Meeting Dental Problems in South Africa	32
Mother and Child	99
Medical and Health Institutions in the U.S.S.R.	467
Misconceptions of Milk	637
Nutrition and Dentition	322
Oral Hygiene	372
Pulp Tester	97
Public Dental Health Problem	212
Potassium Chlorate in Dentifrices	214
Preventive Dentistry in the Pre-School Period and During Foetal Life	411
Public Dental Announcements	463
Possibilities and Limitations	464
Prices in Soviet Union and England	527
Pipe Smoker's Idea	637
Society Hears Pettengill Play Socialized Dentistry	211
"Socialized Medicine"	315
Study of Ascorbic Acid Blood Levels in Dental Patients	463
Seeing Red	585
Systematic and Blood Findings in Parodontosis	588
The Atlanta Mouth Health Program	33
The Treatment of Children's Teeth	95
The Banana	98
Tradition of Medicine	99
The Physical Welfare of the Dionne Quintuplets	214
The Effect of Medicaments on the Motility of the Oral Flora with Special Reference to the Treatment of Vincent's Infection	315
The Effect of Tobacco on Blood Pressure	589
The Dangers of Treating Indigestion by Adversitised Nostrums	589
The Medical Student in Germany	634
Vitamin K	370
What Lies Ahead for Business and the Health Professions	318
Where Are the Foci of Yesterday?	527
Who Goes to the Dentist? Demand vs. Need	588

REPORTS	Page
Upon Public Dental Health Education	16
Committee on State Dentistry of the C.D.A.	450
Committee on Dental Education of the C.D.A.	451
Necrology Committee of the C.D.A.	453
Canadian Dental Association—President's Report	497
Research Committee of the C.D.A.	515
Public Dental Health Committee of the C.D.A.	517
Legislative Committee of the C.D.A.	520
Military Committee of the C.D.A.	573

BOOK REVIEWS

A History of Dentistry—Arthur Ward Lufkin ..	414
A Scrap Book of Dental Informalities—Herbert Ely	532
Accepted Dental Remedies	593
Conduction Infiltration and General Anaesthesia—Mendel Nevin and P. G. Puterbaugh ..	643
Dental Histology and Embryology—Frederick Bogue Noyes	472
Dental Science and Dental Art—Samuel M. Gordon	643
Fractures of the Jaw—Robert H. Ivy	532
Surgical Diseases of the Mouth and Jaws—Earl Calvin Padgett	217
The Treatment of Clinical and Laboratory Data—Donald Mainland	217
Year Book of Dentistry, 1937—Charles G. Darlington, George W. Wilson, Howard C. Miller, Charles Lane and George M. Anderson	103

CORRESPONDENCE

Letter from J. M. Prime, Omaha, Nebraska	41
Letter from S. Stuart Crouch, Toronto	104
Letter from R. G. McMillan, Windsor, Ontario ..	272
Letter from "Hoping"	272
Letter from Kent Kane Cross, Denver, Colo.	375
Letter from W. G. Campbell, Chengtu, Sze., China	415
Letter to Editor of "Life" Magazine	531
Letter from "Life"	593

NEWS

Anniversary of Montreal Dental Club	44
Annual Meeting of Canadian Dental Hygiene Council	111
Annual Licence Fee	170
A Statement from the Committee on Legislation, American Dental Association	224
An Understaffed Profession	279
American Dental Association Plans S. F. Fair Exhibit	281
Alberta Dental Association	326, 376,
A Busy Office	334
American Dental Association	336
A.D.A. Poster Contest	385
A Committee of the Public Dental Health Committee of the Toronto Academy of Dentistry Report the Following Comments in their Study of a Survey Published in this Journal in September, 1937	472
Annual Meeting of N.B. Dental Society	474
Academy of Dentistry	533
Annual Convention—Nova Scotia	534
Annual Convention—Prince Edward Island	534
Annual Convention—Nova Scotia	597
A.D.A. Activities	651
Bay of Quinte District Dental Society	329
Bowmanville Dental Clinic	419
British Columbia Dental Association	422
Bakelite Demonstration	472
B.M.A.'s National Health Insurance Scheme	476
British Dental Association	536
Court Case	41
Canadian Dental Hygiene Council	42
Court Cases	42
C.D.A. Congratulations	43
C.D.A. Delegate	46, 382
City Council Grant	105
Court Case	107
Chatham Kinsmen Club	167
Child's Death Blamed on Dental Negligence	168

Index to Volume 4

	Page		Page
Collections	169	Health League	276
Cost of State Health Service in U.S.A.	225	Hamilton Dental Society	277, 648
Calgary Dental Society	275, 326, 475, 535, 645	Hero	385
Change in Dental Relief Regulations in Province of Ontario	327	Health Conference	385
Clinic at Timmins	420	Health and Scientific Exhibits, St. Louis ..	425
Conference on National Dental Health Association	423	Honour Memory of Late C. Angus Kennedy ..	535
Canadian Dental Association	424	Honorary Degree for Dentist, S. Africa ..	599
Child Dies in Dental Chair	473	Health Insurance Proposed in Cleveland ..	601
Conference on Education	536	Health Insurance Approved	602
Children's Dentistry at the St. Louis Meeting ..	540	I.O.D.E. Clinic in Saskatoon ..	41
C.A.D.C.	542	In Memoriam Resolution	168
Correction	542	Inquiry Into Conditions of Service Training and Wages of Dental Mechanics	279
C.D.A. and Customs	646	Interesting Experience	475
Dr. W. N. Kemp Addresses Vancouver Dental Society	44	Items of Interest from the Report of the College of Dental Surgeons of the Province of Quebec	534
Dr. Pallen Visits Edmonton	46	Important Advice to Parents on the Care of Children's Teeth	538
Dentist Absolved in Damage Action	46	Jap Health Insurance	542
Dr. F. A. Kohli is Promoted	105	Kent County Dental Association	278
Dr. Cameron Honoured	107	Kiwanis Dental Clinic	473
Dr. Pallen Visits Regina	107	London Dental Society	222, 382
Dentist Pulled His Own Teeth	108	Lions Club Dental Clinic	278
Dominion Dental Council Time Table Annual Examination, 1938	109	Leigh C. Fairbank to be First Brigadier-General of the Dental Corps, U.S. Army	280
Dramatic Radio Program of Chicago Dental Society	111	Life Insurance	281
Did You Know That	111	Lethbridge Dental Society	423
Dental Board of the United Kingdom	170	Montreal Dental Club 45, 106, 218, 278, 331, 533, 644	44
Dental Health Education	170	Moncton Dental Clinic	48
Dental Health for the Low Income Groups	171	Mission in Alaska	48
Death in Dental Office	218	Manitoba Dental Association 104, 221, 327, 377, 646	106, 331, 644
Dental Education	219, 537	Mount Royal Dental Society	111
Dental Health Day	221	Medical Exemptions	111
Dentists' Wives Association	222	Moose Jaw Dental Society	169, 276, 327, 645
Dental Laws	223	Mouth Health Campaign	218
Dental Clinic at Orillia	277	Medicine Again	223
Decentralizing Hamilton Dental Clinics	278	Midwinter Meeting of the Chicago Dental Society	225
Dominion Dental Council	280, 424	Mail Order Dentures	334
Durham Dental Society	330	Master of Dental Surgery Degree	477
Dental Convention—New Brunswick	332	Notice of Amendments to the C.D.A. By-laws ..	47
Dental Health in Glasgow	332	National Income for 1938 in U.S.A. Estimated at 70 Billion	112
Dentistry for Eskimos	382	Nobel Prize Award	171
Dental Research	383	Nair Hospital Dental College	223
Dominion Dental Council Examination Results ..	384	National Dental Poster Contest Prizes in U.S.A. ..	225
Dental Hygiene Course	385	New Glasgow Dentist Receives Payment for 1918 Account	274
Dental Insurance in Utah	386	1938 Dental Essay Competition	279
Dr. F. M. Lott Visits the West	418	North Battleford Dental Clinic	327
Dental Patient 23 Hours After Birth	420	1938 Dental Graduates	425
Dental Clinic—Prince Edward Island	421	National Health Insurance	536
Dental Legislation in India	423	Orillia Service Clubs	43
Dentists Attention	482	Only 20 Per Cent Use a Tooth Brush	225
Dental Student Enrolment	540	Oral Health Campaign	273
Dentistry at the Golden Gate Exposition	540	Ontario Doctors to Join C.M.A.	330
Delegates Meeting of American Medical Association	600	Ontario Dental Association	330
Dental Specialties	650	Orillia Kiwanis Club	331
Dramatic Radio Program	653	Open Letter	426
Excerpts from New Dental Law of the State of Missouri, U.S.A.	46	Pacific Coast Dental Congress	45
Extramural Lecture-Clinics	188	Post-Graduate Courses	109
Edmonton Dental Society 169, 220, 326, 422, 598, Economics	427	Pacific Coast Dental Conference 168, 219, 274, 325, Portsmouth Voluntary Council for Health Education	223
Elementary Economics and Dental Salaries	483	Professionalizing the Dental Teacher	225
Education	539	Progress Report on Dr. Trier's Questionnaire ..	280
Eastern Ontario Dental Association	594	Public Dental Clinic	328
Ethics Committee of the C.D.A.	600	Pictou Dental Clinic	332
4-H Club Health Champions in Minnesota	49	Pre-School Dental Clinic in Melbourne	333
Fifth Annual Post-Graduate Course in Periodontia	111	Plan Pushed by Doctors	335
Final Figures on Chicago Mid-Winter Meeting for 1938 Reveal Record Attendance	282	Public Dental Health Committee	419
First Annual Summer Post-Graduate Course in Fixed Bridge Work	334	Peterboro Dental Requirements	419
Fourteenth Annual Fall Clinic	383	Professor Gottlieb's Classes	482
Firemen Decide on Dental Treatment	419	Prepare Series on Dental Care	482
43rd Annual Convention—New Brunswick	420	Public School Dental Service	535
Foreign Chewing Gum Sales Total \$1,177,527 ..	428	Parliamentary Intelligence Refugee German and Austrian Doctors	536
Fourteenth Annual Fall Clinic of the Montreal Dental Club	474	Premedical Education	540
Gift to R.C.D.S.	104	Peoples League of Health Nutritional Research ..	599
Greater New York Dental Meeting	111	Preventive Dentistry, Australia	599
Galt Dental Clinic	167	Pacific Health Corporation Barred	602
General Incidence of Rheumatic Diseases	281	Resolution	47, 168
Hamilton and London Dental Societies	167	Radio Program of Chicago Dental Society	48
Halifax Dental Society	219, 274, 420	Regina Dental Society	108, 276, 326, 598
Health Fair in Ottawa	221	Report of Discipline Committee	277
Health Department, City of Calgary	275	Red Cross Dental Clinic	330
		Released from Prison Term	332, 533
		Returned Soldiers Preparatory Class	418

Index to Volume 4

Report on the National Health Conference . . .	Page 479
Red Cross Adds Dental Services . . .	533
Research Notice . . .	542
Red Cross Health Scheme in South Africa . . .	649
Study Clubs . . .	107
Scholarship in Dentistry . . .	108
"Social Insurance Does Nothing for Prevention," Says Noted Viennese Educator, Dr. Hans Pichler . . .	110
Saskatoon Dental Clinic . . .	169
Saskatchewan Convention . . . 220, 275,	376
Stratford Dental Society . . .	221
Students' Conference at Johannesburg . . .	223
Saskatoon Dental Society . . .	327
Socialized Dentistry Scored at Convention . . .	333
Survey Shows 1 in 5 Never Visit Dentist . . .	335
School Dental Clinics . . .	474
School Dentist . . .	535
School Dental Service . . .	538
Science Service Offers Dental News Articles . . .	540
Socialized Medicine . . .	541
Special Session of the House of Delegates of the American Medical Association . . .	600
The Manitoba Dental Association . . .	41
Trade Practices in U.S.A. . . .	48
Travelcade of Plastics to Open at Radio City . . .	171
The Dangers of Oral Sepsis . . .	222
10th Australian Congress . . .	223
Toronto Academy of Dentistry . . .	42, 104, 167, 222, 277, 647
Toronto Downtown Dental Society . . .	277
Toronto East Dental Society . . .	277
The Ontario Dental Association Convention, May 1938 . . .	378
Thunder Bay Dental Association . . .	419
Toronto and District Golf Association . . .	420
Trailer Hospital Newest Departure in United States Medicine . . .	427
Two Elected to Dental Council . . .	535
To Celebrate 25th Anniversary . . .	540
The Dental Assistant . . .	541
Toronto Junior Academy of Dentistry . . .	648
University of Toronto News . . . 42, 46	
Use of the Toothbrush . . .	335
University of Toronto Alumni Dinner . . .	474
Vancouver Dental Society . . . 107, 220, 326,	598
Visitors to Pacific Coast . . .	476
Winnipeg Dental Society . . .	42, 104, 169, 221, 276, 535, 598, 646
"Whither Dentistry" . . .	170
Wages of Dental Mechanics . . .	222
William Ernest Cummer, D.D.S., F.A.C.D., C.S.B. . . .	381
Warning by Sir H. Hetherington . . .	476
Walter G. Zoller Memorial Dental Clinic . . .	477
Welfare Club of Chicago Dental Society . . .	482
W.P.A. Orders False Teeth (N.Y.C.) . . .	539
Xi Psi Phi Fraternity . . .	278

BIRTHS

Prestien, Dorothy Jane . . .	282
------------------------------	-----

IN MEMORIAM

Axon, Frederick A. . . .	112
Ainsworth, Francis F. W. Askey . . .	282
Black, Arthur Davenport . . .	50
Bass, Fred L. . . .	50
Bellanger, G. A. . . .	50
Burt, Robert Bruce . . .	172
Bowin, Joseph Emile . . .	282
Baxter, D. T. . . .	386
Balcom, William S. . . .	428
Bruce, William James . . .	483
Barton, James H. . . .	542
Creegan, Peter Charles . . .	50
Coon, Wilbur Harvey . . .	484
Davenport, William Slocum . . .	337
Dolamore, W. H. . . .	338
Dean, Robert A. . . .	654
Ellis, Mrs. Arthur W. . . .	602
Eckman, Philip A. . . .	654
Field, R. P. . . .	172
Fones, Alfred C. . . .	338
Firstbrook, Arthur . . .	484
Gaudet, Yvon E. . . .	50
Grieve, William Edward . . .	226

Gansby, Edgar Lyon . . .	Page 386
Henderson, George H. . . .	112
Hall, W. S. . . .	172
Johnston, Jacob Edward . . .	484
Jenks, Archibald N. . . .	484
Keyes, Frederick . . .	484
Kerr, William J. . . .	654
Lane, Charles . . .	338
McGuigan, M. A. . . .	226
MacDougall, John Spurgeon . . .	282
McKnight, Richard . . .	428
McPhee, W. H. . . .	484
Moody, Frank G. . . .	484
Madigan, K. M. . . .	484
McElhinney, Mark Gamble . . .	654
Pinault, Joseph Alfred . . .	50
Peterson, John A. . . .	386
Pye, Albert C. . . .	484
Purdy, Clarence Frederick Montgomery . . .	542
Rickett, Ura Garfield . . .	602
Rogers, J. L. . . .	226
Switzer, William George . . .	602
Thompson, Lawrence . . .	172
Truman, Charles Edwin . . .	338
Taylor, George P. . . .	428
Villain, George . . .	338
Wood, H. A. . . .	112
White, F. E. . . .	226
Webster, Alfred Frederick . . .	337
Willmott, Mrs. J. B. . . .	428
Zeigler, Cyrus Hallman . . .	50

LIST OF CONTRIBUTORS

Ahrens, A. C. . . .	199
Ante, Irvin H. . . .	500
Bagnall, J. S. . . .	3, 520
Bregstein, S. Joseph . . .	259
Cole, L. Olive . . .	191
Cameron, Gordon C. . . .	399
Cripps, S. . . .	253
Clapp, George Wood . . .	523
Dvorak, W. A. . . .	14
Ellis, Roy G. . . .	6
Fletcher, A. Almon . . .	65, 401
Fisk, G. Vernon . . .	397
Fournet, Sidney C. . . .	144
Gerrie, J. W. . . .	188
Graham, Wallace . . .	351
Guest, Edmund T. . . .	403
Higgins, A. E. . . .	356
Harwood, F. C. . . .	267
Howard, Catharine . . .	631
Krasnow, Frances . . .	135
Lindsay, Ashley W. . . .	70
Leggett, T. H. . . .	127
Lewis, E. P. . . .	443
Lott, F. M. . . .	573
"Life," Editor . . .	593
Lapp, John S. . . .	450
MacGregor, S. A. . . .	74
Morgan, George A. . . .	185, 295
McCaughy, S. G. . . .	257
McLennan, William G. S. . . .	448
Moline, W. A. . . .	302
Marsh, T. L. . . .	16, 439
Mitton, Glenn T. . . .	446
Miller, W. N. . . .	308, 361, 407, 454,
McBride, Walter C. . . .	154
Martin, Frank . . .	500
Marshall, Thomas R. . . .	555
MacDonald, Howard W. . . .	453
McDonagh, Andrew J. . . .	515
McCall, John Oppie . . .	615
Risdon, Fulton . . .	239
Rose, R. S. . . .	358
Shultzis, J. M. . . .	21
Swanson, Clayton A. . . .	506
Segard, Christian P. . . .	564
Stillson, W. C. . . .	583
Stillman, Paul R. . . .	627
Tuller, Charles Shepard . . .	144
Tisdall, F. . . .	441
Thomson, Harry S. . . .	517, 622
Veitch, E. C. . . .	135
Whitman, Orman . . .	305
Woodbury, Wm. W. . . .	451
Young, George S. . . .	300

Index au Volume 4—1938

	Page	Page
Bactériologie (La) des concrétions pierreuses de la pulpe dentaire, par Kretshmer (Otto) et Seybold (John W.). (Un rapport préliminaire traduit de l'anglais par J. A. Renaud)	229	
Conserver la pulpe vivante, par Alcide Thibaudcau	342	
Dent (La) organe de mastication, par Gaston Guérard	53	
Dentiste (Le) et sa responsabilité professionnelle, par F. Philippe Brais, C.R.	418	
Dentiste (Le) et sa responsabilité professionnelle, par F. Philippe Brais, C.R.	546	
Dentiste (Le) et sa responsabilité professionnelle, par F. Philippe Brais, C.R.	608	
Dentiste (Le) et sa responsabilité professionnelle, par F. Philippe Brais, C.R.	655	
Doit-on extraire toute dent de sagesse? par Gérard de Montigny	117	
Dosages (Les) au pH en rapport avec la carie dentaire, par Irénée Frappier	603	
Extrait du rapport présenté au IXème Congrès Dentaire International de la F.D.I., Vienne, 2 au 8 août 1936, par Jules Thébaud.	661	
Faut-il extraire toute dent de sagesse? par Alcide Thibaudcau	174	
Faiblesse des amalgames, par Alcide Thibaudcau	543	
Incorporation (L') de la chirurgie dentaire, par P. E. Poitras	347	
Lisons-nous suffisamment? par Yves Lafleur.	486	
Orthodontie (L') par Paul Geoffrion	119	
Orthodontie (L') par Paul Geoffrion	176	
Orthodontie (L') par Paul Geoffrion	235	
Orthodontie (L') par Paul Geoffrion	283	
Pont dentaire dans l'oesophage expulsé par les voies naturelles, par I. N. Roy	339	
Sur deux articles du Dental Digest, par Yves Lafleur	56	
Syphilis (La) et les dangers de contamination pour le dentiste (Le Siècle Dentaire, janvier 1938)	179	
Traitement (Le) chirurgical-orthopédique des fractures simples de l'arcade zygomatique. (Traduction du texte allemand par J. E. de Weyer)	113	
Tabac (Le), par Alcide Thibaudcau	227	
* ARTICULETS		
Excès (L') des sports et de la cure solaire, par André Dufourt	123	
Faute (Une) grave, par Alcide Thibaudcau	551	
Saoulerie, par Constantin-Weyer	551	
■ EDITORIAUX		
Editorial, par Alcide Thibaudcau	51	
Editorial, par Paul Geoffrion	173	
Editorial, par Alcide Thibaudcau	485	
■ NOUVELLES DIVERSES		
Association des Chirurgiens-Dentistes des Trois-Rivières, par Gérard de Montigny	662	
Bal (Le) des anciens de la faculté de chirurgie dentaire	61	
Bal (Le) des anciens de la faculté de chirurgie dentaire	292	
Banquet traditionnel	611	
Belle initiative	610	
Congrès (Le) IVème, des dentistes de langue française de l'Amérique du Nord	61	
Congrès (Le) IVème, des dentistes de langue française de l'Amérique du Nord	113	
Congrès (Le) IVème, des dentistes de langue française de l'Amérique du Nord	236	
Congrès (Le) IVème, des dentistes de langue française de l'Amérique du Nord	292	
Conventum des chirurgiens-dentistes des classes de 1912-13-14	487	
Roy (J. N.) Pont dentaire dans l'oesophage expulsé par les voies naturelles	339	
Roy (Maurice) Le docteur Georges Villain	387	
Thébaud (Jules) Extrait du rapport présenté au IXème Congrès Dentaire International de la F.D.I., Vienne, 2 au 8 août 1936	661	
Thibaudcau (Alcide) Le docteur A. Pinault	52	
Faut-il extraire toute dent de sagesse?	174	
Le tabac	227	
Le bal des anciens de la faculté de chirurgie-dentaire	292	
Conserver la pulpe vivante	342	
Editorial	485	
Faiblesse des amalgames	545	
Une faute grave	551	
Weyer (Constantin) Saoulerie	551	

	Page
1912-13-14	487
Compte-rendu des activités du comité des cliniques et conférences pour le congrès des dentistes de langue française de l'Amérique du Nord	291
Insulte (Une)	177
Nouvelle société dentaire	611
Société dentaire de Montréal	61

* REVUE DES REVUES

Revue des Revues, par Gérard de Montigny	58
Revue des Revues, par Gérard de Montigny	122
Revue des Revues, par Gérard de Montigny	181
Revue des Revues, par Gérard de Montigny	290
Revue des Revues, par Gérard de Montigny	664

* NECROLOGIE

Pinault (Feu) Joseph Alfred	52-61
Armitage (Feu) Guelph	292
Villain (Feu) Georges	346-387
Païement (Feu) Gaston	611
Monette (Feu) Wilfrid	664
Jutras (Feu) J. A.	664

* TABLE ALPHABETIQUE DES AUTEURS

Brais (F. Philippe C.R.), Le Dentiste et sa responsabilité professionnelle	448
Le Dentiste et sa responsabilité professionnelle	546
Le Dentiste et sa responsabilité professionnelle	608
Le Dentiste et sa responsabilité professionnelle, par F. Philippe Brais, C.R.	655
Dufourt (André) L'excès des sports et de la cure solaire	123
de Montigny (Gérard) Revue des Revues	58
Revue des Revues	122
Revue des Revues	181
Revue des Revues	664
Doit-on extraire toute dent de sagesse?	117
Frappier (Irénée) Des dosages au pH en rapport avec la carie dentaire	603
Geoffrion (Paul) L'Orthodontie	119
L'Orthodontie	176
L'Orthodontie	235
L'Orthodontie	283
En marge du prochain congrès	173
Guérard (Gaston) La dent organe de mastication	53
Gerke (J.) Le traitement Chirurgico-Orthopédique des fractures simples de l'arcade zygomatique (traduction du texte allemand par J. E. de Weyer)	113
Kretshmer (Otto) et Seybold (John W.) La bactériologie des concrétions pierreuses de la pulpe dentaire. (Un rapport préliminaire traduit de l'anglais par J. A. Renaud)	229
Lafleur (Yves) Sur deux articles de Dental Digest	56
Lisons-nous suffisamment?	486
Poitras (Paul E.) L'Incorporation de la chirurgie-dentaire	347
Conventum des chirurgiens-dentistes des classes de 1912-13-14	487
Roy (J. N.) Pont dentaire dans l'oesophage expulsé par les voies naturelles	339
Roy (Maurice) Le docteur Georges Villain	387
Thébaud (Jules) Extrait du rapport présenté au IXème Congrès Dentaire International de la F.D.I., Vienne, 2 au 8 août 1936	661
Thibaudcau (Alcide) Le docteur A. Pinault	52
Faut-il extraire toute dent de sagesse?	174
Le tabac	227
Le bal des anciens de la faculté de chirurgie-dentaire	292
Conserver la pulpe vivante	342
Editorial	485
Faiblesse des amalgames	545
Une faute grave	551
Weyer (Constantin) Saoulerie	551

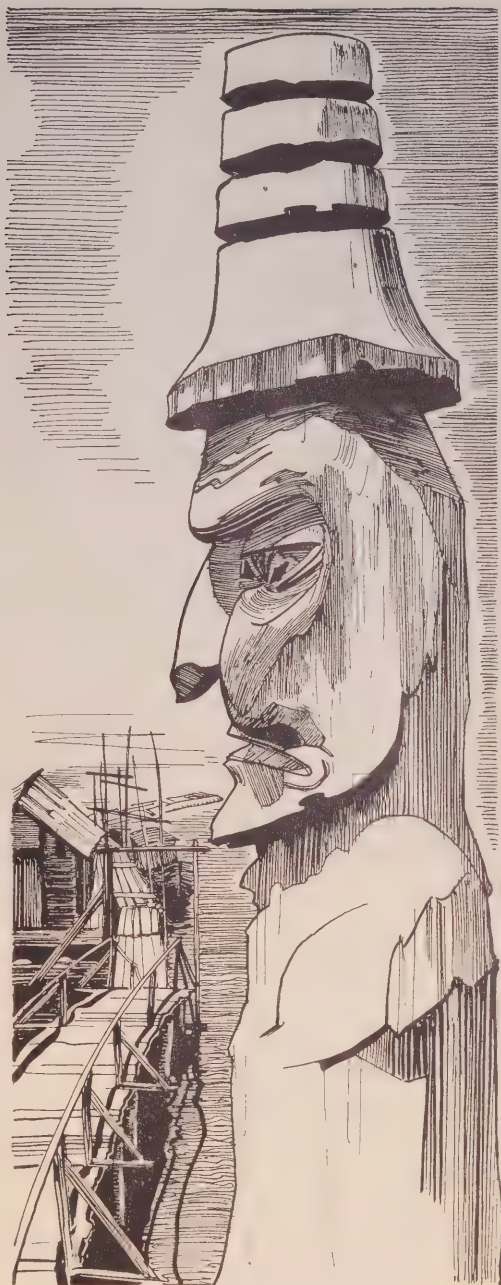
•

Totem-pole carved by Yakuglas of the Kwakiutyl tribe of Indians, which inhabits the northeast corner of Vancouver Island and a strip of adjacent main land.

The adjoining picture is by W. J. Phillips, R.C.A., Winnipeg, and reproduced by courtesy of the "Beaver".

Mr. Phillips says,—“West coast carving has always attracted me. I see so much humour in it—that rare but precious quality of art, of naïveté, exotic charm and of bold design. Unfortunately the Indian has now adopted the sophisticated yet artless ways of the white; he has exchanged beauty and simplicity for standardized, machine made comfort.”

There is a particular significance in all of this to the dental profession, since we know that health standards usually become lower as our native people contact so-called civilization.





WILLIAM J. LEA, D.D.S.
Vancouver, British Columbia.

President of the Fifth Pacific Coast Dental Conference
(Vancouver, July 4-8).

Registrar-Treasurer of the College of Dental Surgeons
of British Columbia.

Vice-President of the Pacific Coast Society
of Orthodontists.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, JANUARY, 1938

NO. 1

Children's Dentistry for the General Practitioner

by J. S. BAGNALL, D.D.S., Halifax, Nova Scotia

THE problem of the best method of procedure to adopt in the care of children's teeth is one of the most difficult which has to be faced by the average practitioner. If he is to perform a well rounded health service, build and maintain a satisfactory practice, he must work out a satisfactory solution to this problem.

If we read some of the voluminous literature written on this phase of dentistry we cannot but be impressed by the actual or implied emphasis on mechanical factors. There are thoughtful and accurate articles on the particular problems of child dentistry: the dental anatomy of the deciduous teeth; the lasting qualities of cements versus copper and silver amalgam; the physical limitations of the child because of the small mouth, the excessive saliva, and his restlessness under pain or fatigue; the psychology of child patients and how to obtain their co-operation.

Is this emphasis in the right place? I think that we too often lose sight of the fact that children's dentistry is a separate, clear-cut problem of its own. The attempt to solve its problems by modifying the practice of adult dentistry is inherently wrong. We visualize the satisfactory adult filling and then attempt to modify that to suit the dental anatomy and physical limitations of the child. While

it is true that many of the mechanical problems are similar in both cases, the physiological background of the two is fundamentally different. In adult dentistry we are dealing with teeth which are designed to last throughout a normal life and with supporting tissues which have not only completed their growth but which will shortly, if not already, be undergoing those retrogressive changes which increase more rapidly with age. When we think of children's dentistry as a modification of adult dentistry we unconsciously visualize the same type and form of restoration for the child as for the adult. While this may lead to excellent results where such factors are simple, easily prepared cavities, good child patients and specially gifted operators are present, it still does not prove the premise to be correct that children's dentistry is a modification of adult dentistry.

Should the emphasis be placed on mechanics or physiology? True, there are many times where the two march together, but how about it when they do not? Take the rather large saucer-shaped cavity so characteristic of moderately advanced cavities in the deciduous molars. Shall we consider this as akin to a similar problem in the adult and proceed to prepare a cavity and insert a filling which is, in all respects, merely a modification of

the adult filling? If we do this it must be with our eyes open to the fact that we may so overtax the child that he will dread dentistry and dentists for many years, at least; run a proportionately greater danger of pulp death; or lose the co-operation of patient and parents because we could not properly prepare the cavity, and because the filling soon falls out. On the other hand, if we tackle the problem from the physiological angle, we realize then that this tooth has a special duty to perform during a transitional, or growing stage of the organism; it must assist in the preparation of the food for digestion and play its part in the growth of the developing jaw. Then we will treat that tooth in such a way that it can carry out its duties with little loss in efficiency and without the dangers inherent in a method of treatment which puts the emphasis on full mechanical restoration.

CARIES WITHOUT PULP INVOLVEMENT

Cavities in the deciduous teeth, which do not involve the pulp, may be divided into two types which merge into one another, without any clear dividing line. We have, on the one hand, such cavities as the simple pit and fissure cavities of the molars, small approximal cavities involving not more than one-third of the mesial or distal surfaces of molars and early proximal cavities in the anteriors. These do not present any great difficulties in preparation and filling with a durable material. Frequently, however, the little patient is not seen until these cavities become so large that restoration by the adult type of filling is a real problem. The proximal cavities have extended well out to the line angles separating the proximal surfaces from the buccal and lingual surfaces. The cavity is more or less saucer shaped and it is a particularly difficult operation to prepare a cavity, designed on correct mechanical principles.

While the gifted operator may restore these areas by inlays or fillings, in some cases, without overtaxing the physical limitations of his patient, the general practitioner finds them a most difficult problem. We have in the silver reduction technique of Percy Howe a very workable solution to this problem. Cavities which are difficult to prepare, because of the amount of cutting required to make them retentive, are frequently, for that very reason, particularly suited to the silver reduction technique, since with a small amount of cleaning and grinding they may be made self-cleansing. If the operation is carefully carried out a vital tooth is retained which is quite capable of meeting the physiological requirements already laid down, and the whole treatment is well within the physical limits of even intractable patients.

If the silver reduction treatment is to stop decay several points must be adhered to. First, all softened dentine must be removed. It is a vain hope to think that the silver reduction technique will penetrate softened dentine and stop decay. Second, the cavity must be smoothed and the edges ground so that food debris will neither be retained in the cavity nor held between cavity and approximating tooth. If these two fundamentals cannot be attained it is useless to attempt to stop decay in this way. Since little pain is involved in this method of treatment by fillings for simple cavities, and silver reduction for those which have become rather more extensive, the child will not have that dread of dentistry which keeps him away until the cavities are too large for either of these methods.

The reagents for silver reduction may be obtained ready prepared, or are easily made by the operator. To make the "A" Solution, three grams of silver nitrate are dissolved in one cubic centimeter of water. This may be hastened by placing the solution in a test tube and using a

moderate amount of heat. Then strong ammonia (28 per cent) is slowly added to this solution until a black precipitate is formed. Shake the mixture and add a little more ammonia until the mixture almost becomes clear again. Filter and store in a dark bottle. The "B" Solution made by diluting one part by volume of 37 per cent formaldehyde with three parts of water. This is kept in a clear bottle.

The prepared tooth is isolated with cotton rolls, dried, and then painted with a small pellet of cotton which has been dipped in the "A" Solution. Wait a minute and then apply the formaldehyde solution in the same way with another pellet without removing the already applied silver solution. Wait three minutes, during which time the reaction may be hastened by the use of gentle blasts of warm air. Wipe off all excess moisture. The cavity should now be coated with a dense black mirror; if it is not, repeat the whole procedure.

This method unfortunately gives the anterior teeth a very unattractive appearance, when used on them, even though some of the stain soon wears off. When the anterior teeth have been permitted to decay to the point where the preparation for a retentive filling is almost certain to cause the death of the pulp is it not wiser to remember our physiological problem and make some sacrifice to aesthetics in order to have these teeth remain vital and carry out their physiological role for the short time they will be needed?

The above method has been carried out for a period of years on several groups of children with very satisfactory end results. The following cases are picked at random from several hundred reports of children who reported once a year for treatment from about six years of age to about fourteen to sixteen years of age.

Case 1.—First contact was in 1925, when the patient was five years of age. At that time silver reduction was carried out on molars and cuspids. No further treatment was necessary until 1931 when three small fillings were required in the permanent molars (occlusal). In each of the three following years an average of three fillings per year were needed. In the following year, when the patient was fifteen, eleven fillings were necessary. This patient returned last year, when three fillings were necessary. At that time all permanent teeth were present and vital. With the exception of a slight irregularity of the upper laterals, the arches were regular and all teeth in good occlusion.

Case 2.—First contact was in 1931 at five years of age. One deciduous molar had to be extracted. Silver reduction was used on four of the other molars. One of these teeth was extracted two years later, another required a small filling. Caries had stopped in the other two. These, with the remaining molars and the upper cuspids, were again treated with silver. During the next three years an average of one filling a year was necessary and the silver treatment was continued. Last spring only the left lower first deciduous molar, still with its coating of silver, remained of the deciduous set. The permanent teeth had either erupted, or ample space was available for them. These teeth were all vital, several had small fillings and the articulation was excellent.

Examination of several score of these children shows that at fifteen to sixteen years nearly all have all their permanent teeth present, very few of the fillings are large, articulation is rarely other than quite regular and all have no dread of dentistry.

The Electrodeposition of Indirect Inlay Models*

by ROY G. ELLIS, B.D.S. (Adel.), D.D.S., B.Sc. (Dent.)
Associate Professor of Operative Dentistry, U. of T.

DURING the last half century dentistry has witnessed many great advances, so that it is now well established in the forefront of the important professions. To achieve this end much valuable original work has been done by individual members of the profession and much has been learned from the experience of others. We have turned repeatedly to the allied arts and sciences and the knowledge gained we have adapted to our own specific needs.

The principles governing the procedures outlined herein apply to the dental application as well as to the trades in question. The results obtained in either case are dependent upon the principles of electrolysis. It is known that during the conduction of electricity through a solution, chemical decomposition takes place and the metal contained therein is deposited in its pure form. By this means it is possible, firstly, to deposit a thin veneer of one metal upon another, namely to electroplate it, and secondly, it is possible to lay a metallic deposit upon an object, whether that object be metallic or non-metallic, without actual union taking place and thus to build a counterpart to the object. This latter process is known as Electroforming.

ELECTROPLATING

In the electroplating trade the article to be plated is of a metallic nature and therefore a conductor of electricity. It is attached to the negative terminal (cathode) of a battery or suitable source of

current and is placed in a tank containing a solution of a salt of the metal to be deposited. A piece of the same metal is attached to the positive terminal (anode) and placed in the tank, but not in contact with the cathode. When the current passes, the metal in solution is deposited upon the cathode, which is the article to be plated. The anode, on the other hand, gradually goes into solution.

ELECTROFORMING

In the electroforming process the deposition may take place upon a surface which is not metallic, i.e., a non-conducting surface. Two outstanding examples of the use of electroforming in the manufacturing world are the production of phonograph records and electrotypes. In the phonograph record industry we see the process of the formation of a "negative" by electrodeposition, from a wax positive. Electrotypes, on the other hand, involves the formation of a "positive" from a wax negative or impression. A brief description of the process of making a record is outlined here from the work of "Blum and Hogaboom" (1). "The original wax record is first coated with graphite upon which copper is deposited to form a "master plate" which is a negative. From this plate one or more "mother plates" are made by electrodeposition. The mother plates are positives, and serve as the forms on which the final matrices or "stamping plates" are deposited. The fact that satisfactory results can be obtained even after several

* Presented at the Ottawa Dental Society Monthly Meeting, October 18, 1937.

The Electrodeposition of Indirect Inlay Models

"generations" of plates have been made is good evidence of the accuracy of reproduction." According to the same authors, "It is the most accurate method of reproducing a metallic surface." Perhaps it is not assuming too much to accept this statement as being true for the reproduction of non-metallic surfaces also. The production of electrotype is carried out as follows. The original type, after being set up and corrected, is prepared and pressed into a block of wax. The impression so obtained is a "negative," into which metal is to be deposited by electrodeposition. Closer examination reveals the fact that the production of electrotype and the dental application of electrodeposition to be discussed herein are similar processes. In each case an impression of wax or equivalent material is obtained of the article to be reproduced. By electrodeposition a positive is formed. Thus we may study the electrotyping industry and collect much valuable data for the operation of our own electroforming apparatus even though it is on a very much reduced scale.

REQUIREMENTS

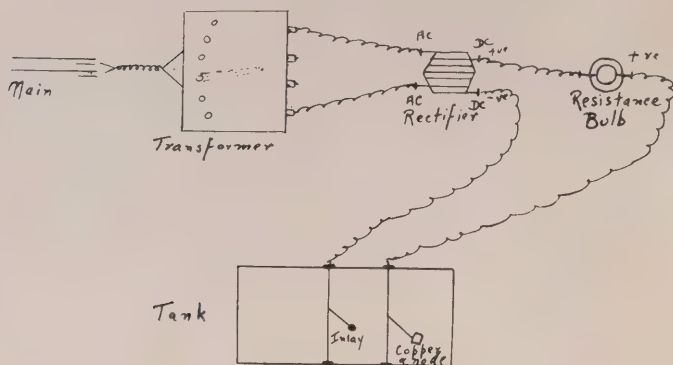
From the study suggested above we find that the first and most obvious requirement is some source of direct current at a constant, relatively low voltage (6-12 V.). Batteries would be suitable but they are in need of continual care and recharging. To generate the current by means of a low voltage dynamo would require the installation of expensive equipment. It is possible, however, to adapt the alternating current as supplied to our office by a simple and inexpensive arrangement. The outline and the apparatus suggested below is found equally as

satisfactory on the 110-120 volt 60 cycle circuit, as on the 110-120 volt 25 cycle circuit. By means of a small transformer, such as the Lionel toy transformer (type WX, 50 W, 25 cycle) secondary voltages ranging from 3 to 17 volts are available.

Converting the alternating current to direct current is accomplished very simply by means of a dryplate rectifier (such as Rectox Unit S. 695622 made by Westinghouse). Finally, a simple resistance to reduce the amperage to within the limits required (for copper 10-15 amp. per square foot) is a 50 or 60 watt lamp, which is connected in the circuit in series. (See Fig. 1.) Thus, very inexpensively, probably not exceeding eight dollars, the current is adapted to meet our requirements. It is not suggested for one minute that the above method is the only way to accomplish this, but a desire to make the set-up simple and inexpensive has been kept foremost in mind.



ROY G. ELLIS



Circuit Outline

Figure 1.

The circuit outline as suggested.

In order that the voltage and amperage across the tank might be recorded, a voltmeter and ammeter may be very readily connected in the circuit. The voltmeter is connected in parallel and the ammeter in series. However these figures have been tabulated for the circuit as seen in Figure 1, and the results are given in the following table.

RELATIONSHIP OF SECONDARY VOLTAGES TO AMPERAGE IN THE CIRCUIT SHOWN*

PRIMARY VOLTAGE 110-120	SECONDARY VOLTAGE	EQUIVALENT AMPERAGE	50-WATT RESISTANCE BULB	60-WATT RESISTANCE BULB
			MILLIAMPERES	MILLIAMPERES
	3.7		28	63
	4.8		36	79
	5.0		37	85
	5.8		42	95
	6.6		47	105
	7.4		52	121
	8.2		56	123
	8.5		57	124
	9.0		60	126
	9.8		64	132
	10.6		67	137
	11.4		71	142
	12.2		75	147
	13.0		78	151
	13.8		81	152
	13.5		79	153
	14.3		83	155
	15.1		86	159
	15.9		90	162
	16.7		93	166
	17.5		96	170

The first column of figures represents the range of secondary voltages possible with the transformer suggested. The second and third columns represent the respective number of milliamperes available with this range of voltage readings when using the 50 or 60 watt resistance bulb.

The solution, acting as the conducting medium and source of metal supply, in which the deposition takes place, is called the electrolyte. It will consist of a salt of the metal to be deposited. In the case of copper, copper sulphate is used extensively. According to Freeman and Hoppe⁽²⁾, 24 to 32 ounces to the gallon of water provides the most favourable limits of concentration of crystallized copper sulphate. It is known that acid solutions are better conductors than ordinary solutions, and since the whole process depends on the degree of conductivity through the electrolyte, it is expedient to use an acid solution of copper sulphate.

* It is found that the same circuit, using the same equipment on the 110 V., 60 cycle line, gives the same readings as set out in the above table.

Experts agree that 8 to 10 ounces of commercial sulphuric acid are required to the gallon. As the acid concentration increases, the solubility of the copper sulphate decreases, so that there is a balance between these two in solution, which must not be overlooked.

The electrolyte formula would be as follows:

Crystal copper sulphate..... 24 to 32 ozs.

Commercial sulphuric acid..... 8 to 10 ozs.

Water 1 gallon

The tank which is employed in the process should be of a non-corrosive material, such as lead or glass. In general it is desirable to have it as large and deep as conditions justify. A large volume of the electrolyte is advantageous in reducing the effect of changes in concentration which may occur as electrolysis takes place.

All parts of the circuit should be constructed of a material which is a good conductor, such as copper, and all contacts, wherever possible, should be made permanent, either by soldering or bolting. The resistance of a single poor contact is very great, and may affect the efficiency of the apparatus seriously.

The anode of copper may be of electrolytic, drawn or rolled copper—the latter is best and should have an area which is larger than the cathode area.

The cathode will be the object on which or into which the electrodeposition is to take place. If it is metallic merely a separating medium is necessary so that a union between the two will not take place. Graphite is satisfactory. If the object on which the deposit is to take place is a non-conductor, then the surface must be rendered conductive by special treatment. If it is porous as in the case of wood or plaster of paris, it must first be rendered impervious to the electrolyte by means of a coat of wax or varnish (shellac) and then conductive by means of graphite or copper bronze. If the sur-

face is impervious such as we have with wax, or dental compound, then it need only be treated to render it conductive, that is, apply the graphite or copper bronze.

CHARACTERISTICS OF DEPOSITION

Our study of the general electroforming and electroplating trades now turns to the factors which influence the characteristics of the deposited metal. The finer the crystals of the deposited metal the smoother, stronger and harder will be the deposit. There are still many unknown factors which influence the character of the deposits but some of the known factors are to be considered. The first known factor is the current density. Current density, according to Freeman and Hoppe, may be defined as "the number of amperes per unit area of cathode," and is given usually as so many amperes per square foot. While opinions vary as to the optimum amperage per square foot for copper deposition, for general purposes 10 to 15 amperes per square foot is accepted. The effect of increasing the current density, according to Bancroft and other authors, is to decrease the size of the crystals which are formed. However, there is a definite limit to the rate at which metal can be deposited and still produce dense deposits. This limit is called the "critical" current density and if it is increased above this limit the deposit produced is soft, loose, spongy and reddish in colour, and is spoken of as a "burnt" deposit. The burnt deposit is highly unsatisfactory and is to be avoided. As the "critical" current density is approached the evolution of hydrogen at the cathode is seen to increase.

The conductivity of the electrolyte has an important bearing on the characteristics of the deposit. The conductivity of the solution governs the potential drop through it. A high potential drop through the solution as the result of a

lowering of sulphuric acid, favours the formation of large crystals and this results in the appearance of "trees" on the surface of the deposit. Unfortunately, during the process of electrolysis it is found that there is a gradual decrease in the acidity and a corresponding increase in the copper sulphate concentration—owing to the fact that more copper is dissolved from the anode than is used at the cathode. The excess copper takes up the sulphuric acid to form copper sulphate, therefore weakens the acidity of the electrolyte, reducing its conductivity and increasing the tendency to form rough deposits and "trees."

Agitation of the electrolyte is employed for the purpose of insuring uniformity of concentration of the solution which in turn maintains a high cathode efficiency and therefore a lessened tendency to produce hydrogen and hence a dense, hard, copper deposit. "However whatever method is used for agitation, whether it be by the introduction of air or by mechanical means, there is danger of particles from the anodes being kept in suspension and giving rise to a roughness on the cathodes." ⁽¹⁾

The temperature of the electrolyte will also affect the characteristics of the deposit. The crystals deposited at higher temperatures are coarser than those deposited at lower temperatures and hence the deposit will be coarser. Therefore the tank should be in a relatively cool place, i.e., away from radiators or other sources of heat.

DENTAL TECHNIQUE

The equipment necessary to prepare an impression for insertion into the electro-depositing tank is simple and inexpensive. It consists of:

1. Bunsen burner
2. Glass slab
3. Camel's hair brush
4. Sticky wax—pink base wax

5. Copper wire (24 G. and 14 G.)
6. Spatula
7. Pair of scissors
8. Graphite

The impression taken in compound or wax in a copper band presents a non-conducting surface, similar to the impression taken of the set-up type in the electrotype process. It presents a surface impervious to the electrolyte and therefore needs no treatment in this respect. For the purpose of rendering the surface a conductor there are two mediums available, namely graphite and copper bronze powder. The important properties of such a medium are that it be (1) a good conductor, (2) of an extreme degree of fineness, (3) that it possess colloidal properties. Of the two mediums mentioned graphite seems to possess these to a greater degree than copper bronze powder. The graphite may be used as a dry powder and dusted onto the surface or it may be used in the wet state. In the electrotype industry in former years it was employed in the dry state but in recent years wet graphite has been used almost universally, because of better conductivity and because the dust was injurious to the health of the workers. Place on a small glass slab enough graphite (Aqua Dag-Acheson Colloids Corporation) to cover a pin's head and mix with about one drop of water. A watery suspension of graphite is obtained which can be painted over the entire wax or compound impression surface, by means of a fine camel's hair brush. (Fig. 2.)

It must be remembered that the copper deposition will extend to the limits of the graphite, so that the extent covered can be controlled by the careful placement of the graphite. Now subject the wet painted impression to a gentle draught of air to dry the surface. Examine it for patches that might have been missed and touch these with the wet graphite and dry. The

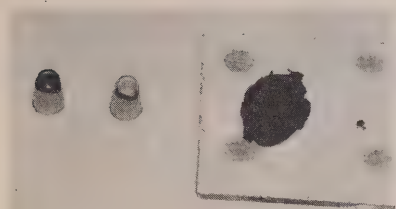


Figure 2.

The graphite mixed on a slab and painted into the impression surface.

use of copper bronze in the author's hands has not been very satisfactory because of the difficulty of rendering the entire area of the impression conducting to the same extent. The result was a model with patches missed invariably.

The second stage in the procedure is that of making arrangements for the inclusion of the impression surface, now a conductor of electricity, in the electrical circuit. The graphited impression surface is to all intents and purposes insulated by the compound impression, unless some part of the copper band around the gingival region of the impression is left exposed and the graphite carried out to meet it. This happens in many cases but for the case in which it does not, provision must be made for directly bringing the impression surface into the circuit.

A piece of fine 24 gauge (B. & S.) copper wire, about two inches long, is taken and at one end about one-eighth to one-quarter of an inch of the wire is bent on itself, thus forming a shepherd's crook. (Fig. 3.) The loop formed is now straddled over the gingival portion of the band so that the short end contacts some part of the graphited impression surface, a point preferably which is not a part of the area of the inlay preparation. The remaining long section of the wire is now wrapped around the outside of the copper band and stuck to it at one spot with sticky wax, leaving

about three-quarters of an inch free. A carrier is now made which serves two purposes; firstly, that of completing the circuit, and secondly, that of carrying the impression into the electrolyte in the tank and at the same time ensuring that all parts of the cathode, other than that small section to be deposited on, are insulated from the electrolyte. (See Fig. 4.)

A piece of 14 gauge copper wire about 5 to 6 inches long is used. At one end a section about 1 to 1½ inches long is bent at right angles to the remainder and two-thirds of this section is flattened. Through



Figure 3.

The first step in wiring the graphited impression.

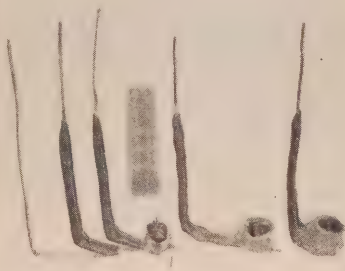


Figure 4.

Attaching the wired impression to the carrier.

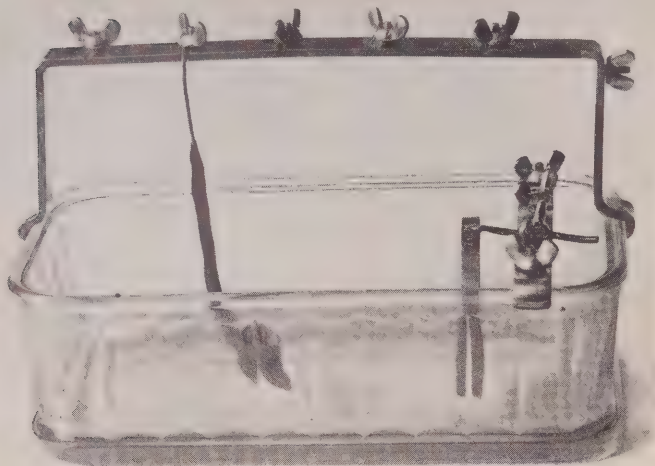


Figure 5.

Tank showing connections and supporting bars.

this flat platform a 22 gauge hole is drilled—about one-eighth of an inch from the end. Now all but the flattened portion and about $1\frac{1}{2}$ inches of the opposite end are covered with one-sixteenth inch of vulcanite to insulate it. The wired impression is now seated on the flattened platform on the carrier and the free end of wire which was left is passed down through the hole on the platform and wound around the end of it. This ensures a good contact at this point in the circuit. A strip of ordinary wax about 2 inches by $\frac{3}{4}$ inch is cut and warmed very slightly (enough to make the wax bend readily) and wrapped around the band. Every portion of metal exposed is now covered with wax and sealed so that the electrolyte cannot possibly come into contact with it. This is the cathode terminal.

The impression now prepared is ready for insertion into the electrolyte in the tank. The electrolyte formula has been given previously. A pickle jar or fish

bowl makes a suitable tank. The two supporting bars across the tank should be good conductors, such as copper ($\frac{1}{2}$ " x $\frac{1}{8}$ ") with suitable connections soldered onto these bars, to which the cathode and anode may be attached, respectively. A simple and yet strong contact is obtained by using screws and thumb nuts for this purpose. (Fig. 5.)

The anode is simply a bar or block of copper which has a short 12 gauge copper wire soldered to it for the purpose of attaching it to the anode supporting bar over the tank. Care should be taken to see that the soldered joint does not enter the solution.

The anode and cathode terminals are now ready to be placed in the tank. The distance they are apart and the relationship between them in so small a tank seems to have little effect on the deposit or rate of deposition. The current density required for the piece must now be estimated. It was previously stated that 10 to 15 amperes per square foot for copper

and acid copper sulphate electrolyte was satisfactory. We must therefore calculate roughly the area of the graphited surface. For the bicuspid impression $\frac{1}{4}$ inch diameter and a band $\frac{1}{2}$ inch deep we have .44 square inches area. In the case of a current density at the rate of 15 amperes per square foot, this small area would require 46 milliamperes. Adjust the current accordingly and switch it on. For a molar three-eighths of an inch diameter and one-half inch deep, 75 milliamperes would be required. A full mouth impression would require approximately 100 milliamperes per square inch of surface.

The time factor is an important consideration at this stage. Enough copper will be deposited at the above current density rate to form a shell which may be used satisfactorily after four hours in the tank. However 10 to 12 hours will produce a shell over $\frac{1}{2}$ mm. thick. Thus if the impression is put in the tank at 6 p.m. or even later and left overnight, by the next morning ample copper will be deposited to ensure a very strong model.

The shell is now quickly backed up with a household cement, stone or a low fusing metal, such as Mellottes. The model will now be complete when the compound impression is removed, being careful not to overheat the compound when doing so. The dark graphite surface may be cleaned off with a brush.

PRECAUTIONS DURING OPERATION

A few precautions might be mentioned which it would be well to observe during the operation of the process.

(1) As the electrolyte is strongly acid a bath of sodium bicarbonate should be kept near at hand into which the finished piece is placed for a minute or two immediately after removing from the tank. This prevents the acid solution coming into contact with the clothes.

(2) The excessive formation of bub-

bles at the cathode will be accompanied by a "burnt" deposit and is due generally to the current density being too high. During normal deposition little or no hydrogen is formed at the cathode.

(3) The tendency for the acid concentration of the electrolyte to become decreased and the copper sulphate concentration increased during normal operation, eventually results in the deposition of copper sulphate crystals on the anode which interferes with normal deposition of copper. Discard the solution and make some new. As no method of agitation is employed in the tank it is recommended that the electrolyte be stirred up once or twice a week to help maintain uniformity in concentration throughout different parts of the tank.

(4) Be extremely careful that the impression is always attached to the negative terminal. If it is attached to the positive terminal by mistake and the source of copper is attached to the negative terminal, the impression will be ruined and the copper band disintegrated. This can happen very easily.

CONCLUSION

We may well ask the question, "What claims are made for electrolytic copper as a model material?" I think the answer will be found partly in the table of comparisons, on the following page.

The cost factor of approximately ten dollars, mentioned in this table, includes the apparatus, i.e., rectifier, transformer, tank, wire connections, etc., amounting to a little less than nine dollars and enough supplies of copper sulphate, copper, sodium bicarbonate, commercial sulphuric acid and graphite to last for a considerable period of time. The cost of operation, i.e., for the electricity, has been estimated roughly to be about one cent per 1,000 hours of operation, and even if this were exaggerating the case greatly, it would still be a small item.

<i>Copper</i>	<i>Factor</i>	<i>Amalgam</i>
Electrolytic copper	40 Hardness (in Brinell numbers)	40-65
Most accurate method known	Accuracy of reproduction of impression	Dependent on manipulation and control of volume changes
Simplicity of deposition	Manipulation	Short-comings in mixing and packing
No packing		Mercury present.
Pure metal	Contamination	Effect on Gold
		Silver alloy .20
Apparatus and supplies to last a year or more approx. \$10.00.	Cost	Mercury .03
Current (fraction of a cent per model).		per model .23
		Copper amalgam .10
		per model (using it over again)

In conclusion it is perhaps unnecessary to point out that this method of making models may be used for all types of gold inlays, porcelain inlays and jacket crowns. The simplicity of manipulation, and the inexpensiveness of the apparatus and production, commend this practical method to greater use.

The writer wishes to express sincere appreciation to Dr. S. M. Richardson of

the Department of Radiography and Photography of the Faculty of Dentistry for the photographs included within this article.

REFERENCES

- (1) Bloom, W., Hogaboom, G. B., Principles of Electroplating and Electroforming. McGraw-Hill, 1929, p.141.
- (2) Freeman, B., Hoppe, F. G., Electroplating with Chromium, Copper and Nickel. Prentice-Hall, 1930, p.101.

The Hidden Treasure

by W. A. DVORAK, D.D.S.

*Oral Hygiene Chairman, Minnesota State Dental Association, Saint Paul, Minnesota.
(Reprint from North-West Dentistry)*

WITHIN the dental profession, there lies concealed a hidden treasure! It is a treasure indeed for it involves inestimable wealth, and it is unquestionably hidden, for thus far it is virtually lost. To elucidate this mysterious calamity better, it may be well to cite the story of the Lost Artist who lived in Paris a few centuries ago. He was a real master, yet no one was aware of it, not even himself. He had no conception of the monetary value of his collection, nor had he any buyers, for he was too reticent about displaying his art in the Public Court. He died a pauper, and after his death his paintings were sold for millions.

We have a parallel situation in our profession: the goods are there to sell but the buyers are limited. Have we, too,

failed to display our wares in the Public Court? Has the dental profession failed in any way in its efforts to keep the avenue between it and the public open? Is the profession itself responsible for the hidden treasure or is the answer just "The Depression"?

Perhaps there is no better way of answering this question than by citing a coincidence that took place in a certain cemetery. On one monument was found the following inscription:

"Here lies Dr. John Smith, a dentist, famous among his colleagues for his great ability and professional skill. He died at the age of 55, discouraged and penniless. He was buried by the City. May he rest in peace."

Within a few feet of the grave of Dr.

Smith, there stood another monument, with this inscription upon it:

"Here lies Mr. John Jones, banker, famous for his success as a financier. Died at the age of 55. Death attributed to bad teeth. His endowment to the City was one million dollars. May he rest in peace."

This evidently was the nearest John Jones had ever been to a dentist. Had those two men availed themselves of the opportunity of getting together in civilian life, chances are that both of them would be living today. But unfortunately they got together too late, and certainly at the wrong place.

Dental health education has been hazardingly postponed by the profession. It has been left almost entirely to dental quacks and commercial advertisers of dentifrices, mouth washes, foods, et cetera, each moulding the story around that which he has to sell. The public is very receptive to health information, yet, unfortunately, it has been getting it only in the guise of radio sales talks and display advertising. What the people actually want to know is the genuine importance of dental health to themselves, and they want to hear it through the profession.

According to a certain psychological analysis determined from a cross section of society, it has been shown that people possess about forty-two buying motives. In the order of their relative strength, they are as follows: Appetite, love of offspring, health, sex attraction, and so on down the line to the last one on the list, "teasing." It is to be regretted that the appeal of dental health to the public has been made largely through the last motive. Most individuals will tolerate a certain amount of teasing, but an overdose soon becomes monotonous and repulsive. They are informed by a radio talk that a certain tooth paste is necessary to save their teeth. Another tells them that a tooth powder is better. Their den-

tist assures them that it is not the dentifrice as much as the proper technique in brushing. One dentist advocates brushing the teeth up and down; another dentist recommends brushing round and round, and just about the time a patient has mastered one of the techniques, he reads an article in the paper, written by an apparent authority on health, who advises no brushing at all. One time the panacea is an alkaline mouth wash, the next time it is a carefully planned diet, and another time it is just plain orange juice. Pyorrhoea can be treated by one dentist for \$50, while another dentist advertises "False teeth as comfortable and as natural as your own, for \$13.50, extractions free." The people are not being *educated*; they are confused and bewildered by the contradictory information. The simple, unadulterated, common-sense facts are missing.

Perhaps the main reason for the neglect of a systematic and definite plan of dental health education lies within the profession itself. It is very difficult to sell this phase of the profession to the average practising dentist, and most of the sales-resistance is centered around two conditions: prosperity and depression. Why promote dental health education during prosperity, when we are all busy; and why waste time during a depression when people have no money? We are all conscious of the fact that many people, who claim they have neglected their teeth because of the lack of funds, are otherwise gorging in luxuries and pleasures that the dentist himself could not think of indulging in. The fact remains that the value and importance of dentistry has not been sold to the public impressively enough, so they may be able to place it in its proper order of sequence in the purchasing motives towards obtaining the necessities of life. Appetite, sex attraction, pleasure, home comfort, and many others are being placed far ahead of

mouth health in importance. This has been frequently proven among people who show all indications of being comfortably situated, yet possess badly neglected mouths. It is very evident that there are other appeals made to the public that are stronger and more impressive than dentistry. Have we not a more fundamental commodity to sell than the manufacturers of cigarettes, cosmetics, chewing gum, beer, et cetera? Yet statistics prove that the money that is expended annually for any one of these articles far exceeds that which is spent for dental services. Every dentist should have enough confidence and pride in his chosen profession to preach the gospel for which it stands—Good Mouth Health for Better Body Health.

There are three primary reasons why dental health education is vital:

1. It tends to inform the public of the progress of modern dentistry and the ideals for which it stands, thereby elevating the profession to a higher level of recognition. The profession gains.

2. The public, being informed on modern dental methods and the important rôle that dentistry plays in its welfare,

will naturally take greater advantage of what the profession has to offer. The public gains.

3. The public, once educated to the appreciation and importance of dental health, will not only demand more dental service, but will demand dentistry of higher type. The dentist gains.

The Minnesota State Dental Association has a standing Oral Hygiene Committee which has been making an intensive study of the dental health problems in Minnesota. While they are appointed for the purpose of disseminating dental health education in the State, it is physically impossible for them to do it alone. They need the co-operation of the entire membership of the State Association. They plead that every man consider dental health education paramount and indispensable for the good of the profession, for the welfare of the individual dentist, and the promotion of better public health.

Information regarding dental health projects may be obtained by communicating with members of the committee, each of whom has charge of a specific phase of the Oral Hygiene Program.

Report Upon Public Dental Health Education

Presented to the Board of Directors of the Royal College of Dental Surgeons of Ontario, on behalf of the Academy of Dentistry, Toronto, by the Subcommittee on Education, of the Public Dental Health Committee.

PLAN of presentation. 1. Co-ordinated plan for Public Dental Health Education in the Province of Ontario.

- (a) Fields in which Public Dental Health Education is concerned.

- (b) Purpose of Public Dental Health Education in these fields.

- (c) Groups responsible for Public

Dental Health Education.

- (d) Division of responsibility in Public Dental Health Education.

- (e) Co-ordination of educational efforts.

2. What the Academy of Dentistry is doing to meet its responsibility in Public Dental Health Education.

Report Upon Public Dental Health Education

Public Dental Health Education influences the following groups:

(A) The lay public—children and adults.

(B) Professional bodies engaged in public health activities, other than dentists.

(C) Professional body of dentists—graduates and undergraduates.

The purpose of Public Dental Health Education of the lay public is to teach the children facts relative to the growth, development, care and preservation of their teeth, in such a manner and to such a degree as their mental development permits.

ADULTS

With adults the purpose is to teach dental health facts which have a preventive, prophylactic or corrective value, in order to create a desire and a resulting demand for a higher standard of dental care than is at present received by a large portion of the public.

To establish in the public mind a better sense of the relative value of dental services as an essential means of achieving health and happiness, as compared with the possession of unnecessary luxuries.

To foster in the public mind an appreciation of the willingness of the profession to meet its responsibilities by assisting in providing the necessary dental services, on a cost or low profit basis, for those economically unable to obtain such services for themselves.

Publicity should be given to the fact that many of those claiming economic difficulties as a reason for dental neglect have, in reality, sufficient income to provide such services for themselves, were not their money being spent on non-necessities which they have come to regard as a right.

PROFESSIONAL BODIES

The purpose of Public Dental Health

Education for professional bodies engaged in public health activities other than dentists is:

To teach and emphasize by the dissemination of scientific and experimental evidence, the importance of dentistry in any activity which has as its object the insuring or the improving of both public and individual health.

To establish better understanding and more efficient co-operation between other professional health bodies and the profession of dentistry.

UNDERGRADUATE

The purpose of Public Dental Health Education for the undergraduate dentist is:

To teach the student that his most important responsibility will be the preservation of his patient's health, and that all other considerations relative to the prosthetic and restorative fields of dentistry should be subservient to this principle.

To insure that the student shall possess a thorough knowledge of diagnosis and the relative importance of dental conditions to the general health of the patient.

The student should be impressed with his responsibility to the profession, and with the importance of associating himself with his local, provincial and national professional organizations.

THE GRADUATE

The purpose of Public Dental Health Education for the graduate is:

To develop a keener sense of responsibility for the health of the dental patient.

To emphasize the importance of preventive and prophylactic measures which safeguard the health of the patient and prolong the life of the natural teeth.

To emphasize the value of routine radiographic, clinical and history examinations as a means to determine rational

treatment in the best interests of the patient's health.

To assist the dentist in planning a dental health program for his own patients.

To encourage the dentist to avail himself of the many advantages to him from membership and active participation in the work of organized dentistry.

To teach the value and the place of professional co-operation with other ethical health professions.

The groups responsible for Public Dental Health Education are the teaching body of dentistry, the individual dentist, and the organized body of practising dentists.

Co-operating agencies are the Government Departments of Health and Education, and other health organizations.

A PLAN FOR THE DIVISION OF RESPONSIBILITIES IN PUBLIC DENTAL HEALTH EDUCATION

(A) Responsibilities of the teaching body.

1. To impress upon the student the principle that the patient's health is the most important consideration.

2. To impress upon the student that the principles of health protection can only be put into practice by the routine use of a thorough radiographic, clinical, and history examination of each patient.

3. To impress upon the students the importance of availing themselves, on graduation, of the advantages of active participation in the work of organized dentistry.

4. To facilitate co-operation between the graduate physician and dentist, by emphasizing to the undergraduate medical student the value and place of dentistry in the prevention of disease and in the protection of health.

5. To demonstrate to the public who, as patients, attend teaching clinics, the principle that the preservation of their

health is the first consideration of dentistry.

(B) Responsibilities of the individual dentist:

1. To regard his patient's health as the first consideration when advising treatment.

2. To teach the principles of prevention and prophylaxis to his patients, and to emphasize the advantage to his patients, of systematic periodic examination and treatment at such intervals as to be of preventive value and thus control dental disorders.

3. To stress the necessity of roentgenograms as an essential part of a complete examination.

4. To be an active member of organized dentistry, and thereby to strengthen organized dentistry; to avail himself of the opportunities such association affords, and to improve his knowledge of public health principles as well as dental technique.

5. To take the initiative in securing co-operation between dentistry and the other healing professions.

(C) Responsibilities of the organized body of practising dentists:

1. To provide opportunities for its members to acquire knowledge of public health principles, methods and practice.

2. To take leadership in promoting public dental health in all classes of people.

3. To secure recognition of the importance of dentistry in the field of public health.

4. To secure more effective co-operation between dentistry and other public health bodies.

5. To co-operate with other groups of organized dentistry linked with a national organization.

The co-ordination of Public Dental Health Education, according to the plan outlined, depends for its success upon the united and harmonious action of all groups within the profession of dentistry.

Report Upon Public Dental Health Education

WHAT THE ACADEMY OF DENTISTRY IS DOING TO MEET ITS RESPONSIBILITIES IN PUBLIC DENTAL HEALTH EDUCATION

I. With the lay public: The Academy is of the opinion that the most effective public dental health education among the laity is achieved at present in the following two ways:

(a) By the individual dentist in his own office.

(b) By the co-operation with other professional and lay bodies interested in the promotion of public health.

The use of the radio as a medium to reach the public has been temporarily abandoned except upon particular occasions, because funds are not available to purchase those hours during which a large enough potential audience for health broadcasts is known to exist, and because the time which has been offered as a donation is unsuitable for the same reasons. We further believe that radio addresses to be effective must be given by well-known and outstanding health workers.

It has been found that newspapers and magazines will not accept material prepared by other than a professional journalist. At present funds have not been available to utilize either of these very valuable mediums for public education.

II. With professional bodies engaged in public health activities other than dental:

1. Has arranged a joint session with the Academy of Medicine for a mutual discussion of some co-related problems.

2. Is preparing a series of articles for publication in the Canadian Journal of Public Health upon the subjects of:

(a) The place of dentistry in public health.

(b) Dentistry and systemic disease.

(c) The mutual benefits of medical and dental co-operation; and other similar topics.

3. Has arranged a reciprocal series of articles by medical writers to be published in the Journal of the Canadian Dental Association.

4. Has co-operated with the Ontario division of the Ontario Red Cross in providing lectures in dental health for the Home Nursing Study Group conducted in the Toronto district.

Has prepared dental material for use in the lectures given by Red Cross nutritionists throughout the province.

Has secured the interest of the Red Cross in including a chapter upon Dentistry in the next edition of the Home Nursing Manual.

5. Has sent a dental representative to the round-table conference upon nutrition, held at McMaster University under the auspices of the Health Division of the Canadian Branch of the League of Nations Society. At this meeting the chairman expressed his appreciation of dentistry as a health service and of the keen interest that has been taken in the field of public health, by the dental profession.

6. Has discussed dentistry and public health with the General Council of the Health League of Canada.

7. Has appointed representatives on the Executive of the Health League of Canada, and through them had the principle accepted that no physical examination may be considered complete which does not include a thorough dental examination including roentgenograms, and performed by a dentist.

8. Has established the principle that dental lectures to lay audiences should be under the control of organized dentistry, and not to be given by individual dentists selected by a lay body.

9. Has provided speakers to Toronto Dental Nurses' and Assistants' Association, Service Clubs, Home and School Clubs, and Industrial Groups.

10. Has co-operated in the Young

Men's Canadian Association Health Week by loaning exhibit material.

11. Has entertained many representatives of health organizations at functions where prominent speakers and clinicians provided the program.

III. *With the professional body of dentists:*

1. Has published and distributed without charge the Academy Bulletin to all Toronto dentists.

2. Has based its program upon the following: "To set as an objective for the next five years the gradual development of an Academy program for the stated meetings which will include the broader aspects of dental practice, rather than emphasize the purely mechanical phases, and that, during this year at least, one meeting will be devoted to a consideration of a fundamental subject."

3. Has made the Academy program so attractive this year that in the interest of self-preservation, members of the dental profession cannot afford to stay outside the organization.

4. Has sponsored intensive study courses by outstanding clinicians at suitable times during the year, limited to Fellows of the Academy.

5. Has conducted extended study groups in all branches of dentistry.

6. Has broadened considerably clinic night, encouraging the active participation of all groups affiliated with the Academy of Dentistry.

7. Has co-operated with the Department of Health of the city, in school dental service.

8. Has sponsored a survey of the public use and appreciation of dental services published *Journal of Canadian Dental Association*, Vol. 3, No. 9, p. 462.

9. Has appointed a committee to study the survey and to prepare a report as to the significance of the facts disclosed relative to:

(a) The dental needs of the public.

(b) The effectiveness of previous public dental health education.

(c) The present needs for public dental health education.

(d) The most favourable approach to the public upon public dental subjects.

(e) The application of the facts disclosed to the problems of the individual dentist.

10. Has appointed a committee to co-operate with the Dean of the Faculty of Dentistry by providing facts relative to Children's Dentistry to be forwarded by him to Dr. Dafoe for use in his weekly commercial broadcast on the "Quints."

11. Has provided a file of catalogued educational material including a complete set of the material published by the A.D.A. for reference, or the use of any member of the Academy interested in Dental Health Education.

12. Is sponsoring a survey of a thousand secondary school students in order to obtain statistics needed to carry on effective Public Dental Health Education.

13. Is sponsoring a plan for dental services in hospitals, with the definite intention of it being utilized as a means of Public Dental Health Education.

14. Is sponsoring a plan of dental diagnostic service in industry with the distribution of educational talks and booklets.

The Academy of Dentistry has prepared this report on Public Dental Health Education, thus making available to the whole body of dentists at large, the results of the experience and observation of the Academy of Dentistry in the field of Public Dental Health Education.

T. L. MARSH, L.D.S., D.D.S.,

Chairman, Education Committee.

October 27, 1937.

Analgesia*

by J. M. SHULTIS, D.D.S., St. Catharines, Ontario

IT IS a pleasure to discuss a subject in which I have been interested since my student days at College.

For the past 14 years the writer has been a constant user of nitrous oxide and oxygen, as a general anaesthetic. At first I had a little difficulty, as many do, in differentiating between the stages of anaesthesia. After a number of successful operations, I was able to recognize the different stages with little confusion. I have read many articles on gas anaesthesia and have found considerable repetition. Confidence is based on experience and familiarity and that is what develops the technique which will give the best results.

I feel that when one is equipped to administer nitrous oxide one has an anaesthetic to work with which, in my estimation, in many cases, is superior to a local anaesthetic. Most of the students just out of school, I presume, are novocaine experts, so from the standpoint of economics, the practitioner who equips himself for the administration of nitrous oxide has an advantage over the man who depends entirely on novocaine.

On many occasions at dental conventions and society meetings, I have heard men say that the only anaesthetic for surgical and operative procedure is novocaine. Not that I am prejudiced against local—I am most enthusiastic about its use—but there are men who from a temperamental and physical standpoint are unfit to use gas anaesthesia. On the other hand, I have never heard a man who uses gas say that he chose gas exclusively, because he knows that in many cases he could not use gas. The man who

has at his disposal such anaesthesia as is suitable for the case at hand will command greater respect and admiration from his patients.

The modern dentist has made phenomenal advances in technical knowledge and has perfected his operative skill to a degree that is astonishing. He stands by his chair and expects to impress his patients with his profound knowledge and skill, of which the patient knows nothing. On the other hand, in many cases, the modern-day patient is a step ahead of the dentist. Do you realize that many of our patients are sensitive to so many little things about which the dentist is careless? Generally speaking, an increasing number of patients seem to have a fear of pain, no doubt due in certain patients to the nervous strain which modern life imposes. In our choice of an anaesthetic for these patients, we should try to estimate, as best we can, the nervous energy and "character set-up" (temperament) of each patient. I feel that there has been so much attention given to the technical side of dentistry that we have overlooked the human side. I believe that one of the biggest reasons for a dentist losing his patients is his thoughtlessness in not performing a painless operation.

STAGES OF ANAESTHESIA

(See Dr. Peebles' *Graphic Anaesthesia Chart*.)

There are termed four stages of anaesthesia and for the dentist who contemplates establishing nitrous oxide in his office, he might find it helpful to review briefly the different stages leading up to anaesthesia.

* Paper and Clinic presented at Ontario Dental Convention, Toronto, May, 1937.

1. Analgesia—In this stage the patient is conscious, the sensory nerves are more or less desensitized and it is with this stage I wish to later demonstrate how certain light dental operations, such as cavity preparation, curreeting deep pyorrhoea pockets, etc., may be performed. The writer has used this stage for giving local and nerve block where patients were fearful of the needle. I would not recommend extracting permanent teeth at this stage because the patient is sure to feel pain and might become prejudiced towards gas. However, loose deciduous teeth may be removed.

If you study Dr. Peebles' chart of anaesthesia, you will see that anaesthesia is best produced by adding nitrous oxide to air and that using oxygen with nitrous oxide to produce analgesia simply causes a waste of both gases. The chart will indicate that there is no necessity for adding oxygen to nitrous oxide until the patient actually reaches the stage of anaesthesia. This chart also shows that during analgesia the patient exhibits practically no abnormal symptoms. Therefore, if any symptoms develop, such as swallowing, slight rigidity or resistance of the eyelid, it means that too much nitrous oxide is being given and the patient has reached the second stage or excitement stage. This does not indicate any danger to the patient but is a signal to decrease the flow of gas.

2. The Excitement Stage—This is the second stage, the patient sometimes experiencing some discomfort due to fear. Respiration is normal, the eyelid is resistant and the muscular indications somewhat rigid.

3. Third Stage—divided into three planes or stratum.

(a) During the early part of this plane the patient experiences light anaesthesia. Symptoms are manifested by the loss of lid reflex and the oscillating of the eyeball from side to side.

(b) The second plane of this stage is where we should have normal anaesthesia for dental surgery. The pupil of the eye is slightly dilated in the majority of cases. The patient may show signs of slight jactitation with heavy breathing. The colour of the patient's lips and skin may have a purplish tinge. Before we operate in this stage, we watch the eyeball, respiration and colour until the respiration is strong and rhythmic.

(c) The third plane is where we have profound anaesthesia which manifests itself in the following manner—the eyeball becomes fixed at centre, due to the relaxation of all the eye muscles, the pupil slowly increases in dilation, the respiration becomes jerky and shallow. The colour becomes noticeably blue and the muscles usually become rigid. There may be a tendency to vomit. This is where oxygen should be administered; otherwise the patient will be brought into the danger stage.

4. Fourth Stage—It is unnecessary for a dentist to allow his patient to reach this stage because there are such pronounced symptoms to inform him of its approach that there can be no mistake of its interpretation. If these symptoms are disregarded cynosis will be complete and all dental anaesthetists should be familiar with resuscitation methods.

Now we are primarily interested in the first stage—Analgesia.

In these days of fast living we are called upon to deal with a certain class of patients due to business and social strain who seem to have a disturbed nervous system, so as an aid to both patient and operator I present to you a treatment or technique which will help reduce our patients' apprehensions or fear of pain. There are, of course, many occasions where the choice of a local anaesthetic would be preferable, but some by their own choice, and we give them the opportunity to choose, prefer gas analgesia.

I tell the patient that analgesia can be produced by gas or by a local anesthetic. I mention here that novocaine acts locally on the nerve endings while nitrous oxide gas acts on the central nervous system and both have a wide margin of safety. But the thought of a needle a mile long (as some people imagine) jabbed into the soft tissues, accompanied by fear and shock, followed by that frequent feeling of swelling and paralysis, and the adrenalin reaction of trembling and shaking, cause many patients to dread the injection more than an extraction or cavity preparation. Not many months ago there was a solution developed for desensitizing teeth. I found it effective in a few cases but I found the work of administering it effectively too laborious and time consuming for general application. However, it did one thing. It was popularized to the extent that the public became more than ever pain conscious.

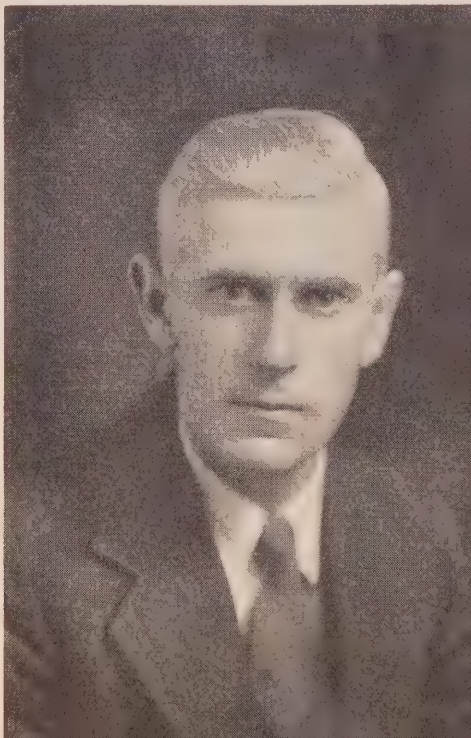
It is here that we can select nitrous oxide gas for its many virtues. The recent popularity of gas for analgesia has been coincident with the perfection of a gas apparatus called the "Analgesor." I am not here to exploit any particular machine but rather just an idea. We are assured of its superiority not only on account of its being simple and inexpensive but because the extent of the analgesia is controlled by the patient by placing a rubber nose piece or nasal inhaler on the nose and a rubber bulb in the palm of the hand.

ADMINISTRATION

In commencing the administration of analgesia, a few comforting remarks of encouragement may be given to the patient. Reassure him that at no time will he lose consciousness or go to sleep. Keep a calm cultivated manner and maintain quietness in the operating room. A gurgling cuspidor or boiling sterilizer is disturbing to the patient as unnecessary sounds will be magnified many times in the patient's mind, which may interfere with proper relaxation and unsatisfactory analgesia.

The stage of analgesia is not apparent to the patient until he realizes that anything he hears seems magnified in volume. This is followed by a peculiar languid feeling in the lower extremities which gradually moves upwards to the hands and arms and thence to the mouth, tongue and lips. The patient is aware of everything that is going on around him.

J. M. SHULTIS



Pressing the bulb occasionally whenever he anticipates any discomfort controls the pain. During the preparation of the cavity the patient co-operates by responding to the request of the operator to expectorate into the bowl. As novocaine acts locally on the nerve endings while the gas acts on the central nervous system, it is apparent that the state of analgesia may be carried on safely for the duration of preparing a number of cavities. By the patient-controlled attachment (the bulb), the patient need only administer the gas when pain is anticipated, thus leaving the operator free to continue preparing the cavities. If there is a particular point reached where the tooth whispers a warning, the operator may request the patient to resume squeezing the bulb and inhale a few times until the sound of the drill is no longer a horror.

Many dentists do not favour using agents which cause the loss of consciousness. With this technique, using the patient-controlled apparatus, there is never any chance of the patient's reaching narcosis, for long before this stage is reached, the bulb will have dropped out of the patient's hand.

This is the picture of painless, comfortable dentistry for which we have all been waiting. This is the ideal answer for the unmanageable child and the neurotic person.

I feel that the use of this method should stimulate the dentist's practice by encouraging many people to have their

teeth attended to, which, in the long run, should result in an improvement in the health of the Canadian people.

One objection to using nitrous oxide analgesia in routine practice may be the initial cost of the apparatus and the maintenance cost, but any investment made in the apparatus will be returned in a short time with dividends from grateful and satisfied patients. The maintenance cost should be around 50 to 75 cents an hour. Besides the fact that the patient is relaxed, there will be an absence of nervous tension on the part of the operator which is particularly noticeable after a long and gruelling day of work. The tasks of dentistry are thereby made lighter and more pleasant and the strength and health of the dentist are conserved.

In conclusion let me leave these thoughts with you. The alleviation of pain is the most important factor in the practice today. Nitrous oxide analgesia is safe, induction simple and painless, there is an absence of post-operative complications and one is able to do more work in less time.

You are all individuals of more or less ability. You must decide for yourself the value of this presentation. You must, if you think you can use this method in your own practice, find out by experience and experiment whether it will really be of service in your hands.

REFERENCES

Heidbrink, Dental Digest, Dental Cosmos, Dental Survey.

It is the duty of you who embark on this wonderful profession (medical) to eliminate fear. It is fear which opens for us the door of your consulting-room. A small number of patients may be callous, or appear so, but most are concealing, or attempting to conceal, fear. You cannot imagine what a tremendous thing it is to find your doctor creating for you a cheerful atmosphere, when he says "Sit down, my dear fellow, and tell me all about it. . . ." So, I beg of you young men, go out and buy a smile, for our ignorance is frightful.—Sir Seymour Hicks in an address to medical students.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the editorial office, 314 Somerset Building, Winnipeg.

Getting the Greatest Good Out of the Office Telephone

SUGGESTIONS TO THE DENTIST AND HIS ASSISTANT

During the course of a business day, you come in contact by telephone with a great number of different people. Some you are glad to talk with because they show interest and courtesy; others you talk with only when necessary because they treat you in a more or less perfunctory manner and give the impression that they are too busy to bother or are conferring a favour. Needless to say, you prefer talking and doing business with people in the first class.

One's reputation for good business methods is often affected by the way in which the telephone is used. In using the telephone remember that you are "my dentist" or "my dentist's assistant" to the person on the other end of the line and his impression of you and the office will depend largely on your attitude.

YOUR VOICE

When you are talking with a person face to face, you depend on general expression—a smile or a gesture—to help convey the meaning of your words. In a conversation over the telephone the tone of your voice alone gives expression to your words. A sharp word spoken with a smile face to face may emphasize your point. Over the telephone it may merely irritate. Let your tone indicate an eager-to-serve spirit which will create a good

impression of you and the profession and people will enjoy talking to you.

A cheerful voice aids in putting the other fellow in a good humour. People unconsciously reflect the attitude of the person on the other end of a telephone connection. If you are abrupt and curt in your manner, you may expect an abrupt and curt reply. If you are courteous and pleasant, you may be assured of a courteous answer.

Clear and distinct enunciation is also very important, because the person to whom you are talking is not helped to understand indistinct speech by watching your face or reading your lips.

Be more courteous over the telephone than you would be face to face. Study the photographs on the following page. They portray the correct telephone personality.

ANSWERING THE TELEPHONE

When your telephone rings, answer it promptly. If you do not, the calling party may not wait and a business loss may result. Do not answer with indefinite words such as "Hello" or "Yes." The best way to answer is to identify the office immediately by the use of the Doctor's name.

The following is a good method. Your bell rings; the assistant answers. "Dr. Brown's office," or the dentist answers, "Dr. Brown speaking." The calling party



should answer, "This is Mr. Woods." The conversation can then proceed without unnecessary delay.

Unless absolutely necessary, the dental assistant should avoid asking who is calling, except when the dentist is out of the office and then this question should come at the end of the conversation. A much better impression is given to the calling party if after being told that Dr. Brown is not in, the dental assistant says, for example, "May I tell him who called?" rather than to be greeted with "Who is calling?" followed by, "Dr. Brown is not in."

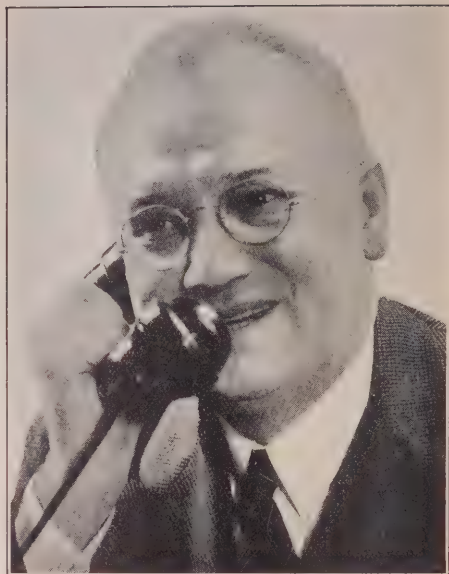
REPLACING THE RECEIVER

When you have finished talking, replace the receiver quietly, as slamming it is likely to cause a sharp bang in the ear of the person to whom you have been talking.

MAKE YOUR OWN CALLS AND HOLD THE LINE

Good will is a priceless asset. Yet it is often seriously impaired, if not destroyed, by the habit some dentists have of instructing their assistant to get the called person on the wire and making him wait until they are ready to talk.

Protect your good will. Always make your own calls if you personally wish to speak to a patient, and stand by until they are completed. It takes only a few seconds and makes for better relationship between



your patients and your office and for more efficient service as well.

SPEAK DIRECTLY INTO THE TRANSMITTER

In the good old days, a person had to shout if he wanted to be heard over the telephone—good exercise but hard on the ears. Nor did this exertion insure that one's auditor would understand the words roared into the mouthpiece. Those times, those telephones are gone forever. From the crude transmitter of yesterday, telephone scientists have evolved the sensitive instrument of today. It is not loudness but clearness that counts. A low, even tone of voice, your normal conversational tone, with lips directly before the mouthpiece and half an inch from it, should enable your auditor to hear you clearly and without straining, whether he is next door or across the continent.—*Half-tones kindly loaned and text reprinted by courtesy of North-West Dentistry.*

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM BRITISH COLUMBIA:

Would you please give me some information regarding some practical mechanical means of overcoming mouth breathing in my six-year-old son?

He had all nasal obstructions removed two years ago and has been examined every four months for further obstructions. He has no bad habits such as thumb sucking, etc., and has a normal occlusion of his deciduous teeth. I have tried suggestion with no success.—C. Hubert Ridley, *Vancouver*.

REPLY FROM QUEBEC:

Mechanical means for overcoming mouth breathing is used only as a last resort. Where all nasal obstruction has been eliminated mental suggestion is usually effective, but evidently not in this case. This may be due to underdevelopment of the upper lip and its consequent shortness imposing a hardship on the patient in the attempt to keep the lips closed and breathe through the nose. If that is the case, it will be necessary to try myofunctional therapy by prescribing such exercises as will develop the upper lip.

One such exercise is to bring the lips together and blow air (orally) under the upper lip, distending it. This should be done twenty times, twice a day with a few seconds rest between each ten times. The number of times may be increased by ten every two weeks until it is done forty

or fifty times, twice a day. Another such exercise is to place the corner of an ordinary visiting card on the lower lip and bring the upper lip down to hold it in place for a few minutes at a time. Repeat this several times a day.

If the lips are normal in tone and development or in addition to the above myofunctional therapy the following mechanical means may be tried. Cut two strips of Surgeon's Silk Isinglass Plaster, two inches by one-quarter inch, and after the lips are closed stick them over both lips in the form of an X. This is done at night and is easily removed in the morning with the aid of water.—Gerald Franklin (*orthodontist*), *Montreal*. Obtained by Victor H. T. Jekill, *Montreal*.

REPLY FROM QUEBEC:

I would suggest that the mouth breathing be considered a temporary habit, which will disappear spontaneously during the course of the next year or two. If there is no dental malocclusion and all nasal obstruction has been removed, the mouth breathing habit will, I am sure, disappear spontaneously without treatment. "Chin straps" are sometimes used but I would not suggest using them on a six-year-old boy. Such appliances are advertised in the *Journal of Paediatrics*.—R. R. Struthers, B.A., M.D., F.R.C.P. (Canada), *Paediatrician to the Montreal General Hospital, Children's Memorial Hospital, Royal Victoria Hospital (ma-*

ternity) and the Catherine Booth Hospital. Report obtained by Dr. V. Jekill, Montreal.

REPLY FROM ONTARIO:

In my opinion the success of efforts to break the mouth breathing habit in a six-year-old child will depend more on the parents than on the child. Nasal breathing exercises, supervised by the parent, must be performed regularly, several times a day, and continued over a considerable period of time, possibly a year. To hold a piece of note paper between the lips will help to ensure their being closed. The only "practical mechanical means" I know of is the application of a strip of some adhesive, such as Surgeons' Silk Isinglass Plaster, placed vertically across the lips to keep them closed while the child is sleeping. A convenient and effective form of adhesive, known as Lip Seals, may be secured from Drug Distributors Inc., 4349 Brooklyn Ave., Detroit, Mich.—C. A. Corrigan, Toronto.

REPLY FROM ONTARIO:

In replying to this question our first consideration should be a study of possible causes of mouth-breathing. These fall into two classes, namely:

- (1) Physical.
- (2) Psychological (functional).

The physical aspect in this particular case may be eliminated inasmuch as it has been already stated that all nasal obstructions have been removed.

Let us look into the functional or psychological aspect of the case. This may be divided into three headings:

- (1) Hysterical.
- (2) Habit.
- (3) Attentional.

If it is a case of hysterical emotion then very little can be done in the way of

introducing some mechanical means in an effort to overcome it. Anything done in this way would only accentuate the present condition and would prove very detrimental to the child. However, this is very unlikely for very rarely is hysterical emotion seen in a child so young as six years.

If it is purely habit as a result of nasal obstruction it is a condition which is also hard to cope with. If, however, the temperament of the child is that from which you expect to receive co-operation and his physical condition is normal, one might resort to the use of adhesive tape in sealing the lips together at night. If this treatment is used, I would suggest, when first applied, that it be put on an hour or so before retiring so that the child will become accustomed to it before attempting to go to sleep. If, however, such a procedure tends to upset the nervous system of the child it would be foolish to continue the treatment. It would be liable to create a characteristic of an antagonistic nature in the make-up of the child?

There is one more possible cause to discuss, that is the attentional aspect of the problem.

The party asking the question states, "I have tried suggestion with no success." A great deal depends on what is meant by suggestion, but if he means that he has continually suggested to the child means of overcoming it, then I think our problem may be one of attentional character. By that, I mean that this particular child in order to receive attention brings the mouth-breathing to the foreground. Let me illustrate:

I had a problem dental child referred to me some time ago who had many attentional habits and whenever he wanted the parents to make a fuss over him one of his pet stunts was brought into play. Several dentists had coped with the problem and when the father

came to the office he told me of how every time a dentist was mentioned the child took sick at his stomach. Another story of the father was a detailed description of how they often had to go blocks out of their way to avoid a street drill, for it reminded the child of the dentist and his stomach kicked up. Every time this lad came to my office he developed a pain or an ache somewhere. I absolutely ignored all this and demanded the same from the parents. It was no time until he ceased to look for attention through his foxy method of appeal, and treatment was administered in an easy manner.

I site this case merely to show what a child sometimes resorts to in order to receive the undivided interest of others.

In this case it will be up to the parents to detect, if this is the underlying cause. If they feel it is, then anything mechanical would only add to the child's point and the condition would not be cured.

The only wise treatment would be to absolutely ignore the condition and I think soon their trouble would be over.

I have tried to deal with the question from a viewpoint of not having seen the child.—*Stewart A. MacGregor, Toronto.*

REPLY FROM SASKATCHEWAN:

It is most unusual to have a mouth breather with, as you say, normal occlu-

sion. The cause of the trouble should first be removed.

I would suggest that your child be given exercise, such as running fast, until he is breathing rapidly (or as some say, until he is all out of breath). Then have the child close his lips tightly and return to normal breathing through the nose. This should be done frequently and under supervision.

You might try taping the lips together. Do this first in the day time. Then, when the child becomes accustomed to it, do it at night time.—*W. W. Irwin, Moose Jaw.*

REPLY FROM MANITOBA:

Would say that during the daytime suggestion and careful check as to closed mouth should be taken. At night, which is the most important time, a four tailed bandage can be used. If this is not a success would use adhesive tape, first covering the lips with vaseline and absorbent or gauze. Tape may be used that has a non-adhesive section in the centre so that the lips will not be touched. This may be applied before the child goes to bed, but if irritating may be put on after the child is asleep, first closing the mouth and then taping.—*N. C. Carmichael, Winnipeg.*

Conventions

PACIFIC COAST DENTAL CONFERENCE, VANCOUVER, JULY 4-8.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

The Forum

● A COMPARISON OF CRUDE AND REFINED SUGAR AND CEREALS IN THEIR ABILITY TO PRODUCE IN VITRO DECALCIFICATION OF TEETH

by T. W. B. OSBORN, J. N. NORISKIN and J. STAZ

From the Department of Physiology, University of the Witwatersrand, Johannesburg, S. Africa.

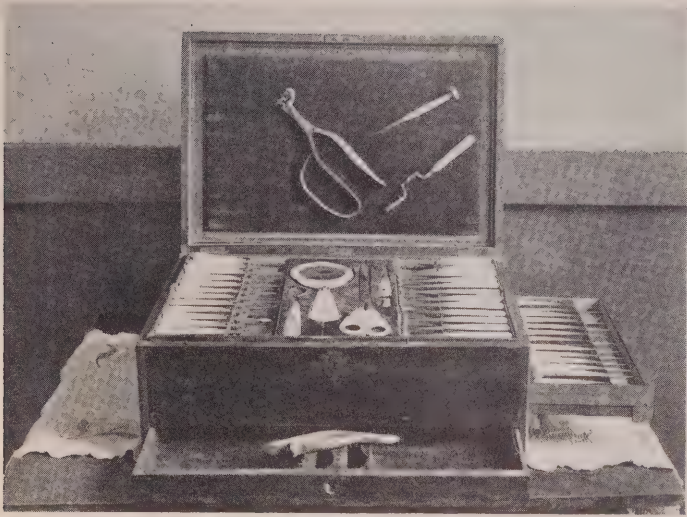
SUMMARY

1. By incubation in media containing sugar or cereals mixed with saliva for periods of from two to eight weeks, healthy teeth were induced to decalcify. 2. Refined white sugar produced this change in a high percentage of teeth; crude cane juice caused very few to decalcify. 3. This strengthens the proposition that refined sugar causes caries but that sugar, eaten as it occurs in nature, does not. The suggestion that there is a "protective agent" in crude sugar-cane juice, which is removed in the course of refining, is advanced with the added assurance. This agent does not depend on an ability to prevent or reduce acid fermentation. 4. Whole mealy meal causes very few teeth to decalcify, highly refined mealy meal (60-70% extraction) produces this change in a high percentage of teeth. There is no significant difference between 90% extraction mealy meal and whole mealy meal. 5. Whereas whole wheat caused a high percentage of teeth to decalcify, highly refined white flour (60-70% extraction) attacked a significantly greater proportion of teeth. 6. By analogy with the proposition put forward for crude cane juice, it is suggested that the carbohydrate in those cereals occurs in nature with a similar "protective agent," which tends to inhibit its injurious action on the teeth. The fact that this is no more than a partial protection in the case of wheat does not

affect the theory. 7. Of the highly refined substances dealt with, flour and mealy meal appear to be more potent in producing in vitro decalcification than sugar.—*Excerpt from Journal of Dental Research, June, 1937.*

● CALCIUM THERAPY IN DENTISTRY

EFFORTS to promote the use of compounds of calcium and phosphorus in medicine and in dentistry have been increasing. Because of the extensive promotion of these products to the dental profession, the Council on Dental Therapeutics has reviewed the functions, uses and actions of calcium in human physiology and nutrition. The dental council pointed out that there is no direct positive evidence from either the laboratory or the clinic that the addition of calcium and phosphorus compounds to an otherwise ample diet influences in any definite manner the incidence of dental decay in the child or in the adult, or that it promotes the development of noncarious teeth in utero, in infancy and during growth or in the adult; nor is there any sound evidence that a calcium drain during pregnancy and lactation is lessened by the addition of these compounds when the diet is well balanced. While there is some dispute as to the exact importance of vitamin D or factors simulating it, the Council on Dental Therapeutics has resolved the problem for dentists by pointing out that cod liver oil has a favourable influence on the absorption and subsequent deposition of calcium and phosphorus in the bones and in the teeth.—(*J.A.M.A., May 8, 1937, p. 1655.*)



● DENTAL RELICS

THE above interesting dental cabinet with its array of instruments is the property of Dr. W. R. Parsons, of Winnipeg.

It is on display at his office in the McIntyre Block, and any dentist who may be visiting Winnipeg, and would like to inspect this case will be made very welcome, by Dr. Parsons.

The case is of old English Rose Wood, with brass trim and it has been estimated that the set is, anywhere from one hundred and twenty-five, to two hundred years old.

On the inside of the cover is observed, an old-fashioned turn key.—To the right is a hand drill made of ivory, with a swivel palm piece.—The other article on the lid is a separating saw.

On the first tray, and part of the second, are fourteen pearl handled instruments,—furled with gold. The other instruments have ivory handles, being made up of tin foil pluggers, excavators, and burnishers.

In the centre of the tray are to be seen a hand mirror, tin foil shears, and a

mouth mirror, with carved pearl handles, set in coloured stones.

The forceps seen below are carved out of wood, as a model, and obviously were designed at a later date.

The following interesting letter relative to the above case of instruments was received by Dr. Parsons Nov. 12, 1937:

Dear Sir,

Relative to the set of dental instruments given to you by the late Dr. R. A. Harvie, would say that I do not think it possible for you to obtain any authentic history or information in connection with the said case of instruments.

My brother, J. S. Stalker, long in the employ of the late Dr. Harvie, relates hearing Dr. Harvie say that the case of instruments was brought into this country from the Old Country by a Dr. Bone, one of the first dentists to practice in these parts,—how, during the Riel uprising the instruments were stolen, and fell into the hands of some of Riel's followers. Dr. Bone sued the Government for the recovery of same, and was compensated to the extent of several thousand dollars—(\$3,000), I believe it was. Later the instruments were recovered, and in due course were returned to Dr. Bone, who at a later date presented the case to young Dr. Harvie, a fellow practitioner.

Trusting this may be of some help to you, I remain

Yours truly,

F. D. STALKER.

• MEETING DENTAL PROBLEMS IN
SOUTH AFRICA

THE medical profession is beset with identical problems to ours; the legal profession is sick of its quacks and brethren who "sail near the wind." Architects draw only about 7 per cent. of the plans for buildings throughout the Union; and anyone, whether he has any knowledge of business or not, may enter any branch of commerce and spoil honest trading. Accountancy and the teaching profession may be heard grumbling on the same grounds and competent veterinary surgeons are so scarce that I am convinced that this is the reason why dogs hide themselves when they become ill.

It is this general prevalence of illegal or incompetent interlopers in every profession and business which makes the problem almost a universal one and its solution very difficult. It has come into existence because of the high standard required by the profession to-day and the gullibility of the public in their desire for something cheaper.

Now what is the result of this inferior element in our various organizations? There is a true saying in economics that when and where bad money circulates, good money is depreciated. This is what is happening in the professions to-day. Professional integrity and good workmanship are being depreciated by the men who should not be doing the work which they are doing (or for which they are untrained), and about which they have no ethical conscience.

In the first place we should make an effort to establish greater unity among the members of the profession. We are far too dissociated. When we speak, we speak softly because we have no "big stick".

Some years ago the Government of Australia imposed a tax on land sur-

vveyors in that country. The land surveyors societies considered the tax an imposition and unjust. They decided not to pay it and to go on strike. So excellent was their professional unity that every man supported the decision of the Society's headquarters with the result that the act was repealed.

Would we act with this unison in some crisis affecting our profession? Why should we not put aside personal differences and work for the profession as a whole?

The second point to attack is the question of the schools. How do we select from our population those who are to fill the so-called higher walks of life? Is there some plan which even in a rough way finds the right men and women for those responsible positions in our economic life which insures the best welfare of the community? In an ideal society the best suited individuals would be selected for training for those positions which require special individual ability and a high sense of ethical responsibility.

I consider the schools and universities should become the selective agents. When a student proves that he is not suitable for a career which he wishes to enter, he should be dismissed in some manner. Deans, professors, instructors can soon tell and they will make few mistakes.

Thirdly, I consider a central controlling body should inaugurate some sort of public propaganda stressing the evils of bad dentistry and drawing attention to the value of sound dentistry. This propaganda should be actively supported by members of the profession on all available opportunities, but particularly in their own practices.

There is no reason why this propaganda should not be a very strong active force which would in the end curb the incompetent and the quack and slowly

produce a demand from the public for the best that we can give.

Should propaganda as I have suggested be adopted, it should be shaped and put into motion by the best brains in the profession.—*Condensed from an article by Bertram Adams, D.D.S., in the South African Dental Journal.*

● THE ATLANTA MOUTH HEALTH PROGRAM

ABOUT six years ago, through the generosity of Mr. Cator Woolford, an experiment was made at the Grant Park School to determine the relationship between mouth health and attendance and scholarship in the schools. A dentist, a hygienist, a visiting nurse and teacher were employed as the result of the gift of this splendid citizen.

Each child's teeth were put in good condition, beginning with the kindergarten and going through all the grades. The improvement in attendance was so marked that many children who had previously had an attendance record of 80 and below came up to 95 and 96, and some of them even to 100 per cent. In all, I should say, there was an improvement in attendance of around 15 per cent. In promotion and scholarship, the record was even better. Dozens of children who had been failing in practically all of their work, were promoted and went rapidly on their way through the grades.

Taking this experiment as a basis for the entire city, it was conservatively estimated that if the mouths of the children in Atlanta could be kept in A-1 condition it would save on an average of from 5 to 10 per cent of the children's time in school. The cost of educating 50,000 children at an average cost of \$80 per child, would be \$3,000,000. Ten per cent of \$3,000,000 would be \$300,000 saved

on account of a mouth health program.

Even at 5 per cent of the child's time saved, \$150,000 a year would be the actual saving in time to the child. If we put the matter another way, based on promotion rather than attendance, we may safely say that at least 5 per cent more of the children are promoted now than before such a health program was carried out. On this basis, 5 per cent of 50,000 children would be 2,500 children at \$60 apiece, and would result in a saving of \$150,000; and if 10 per cent more were promoted, would result in a saving of \$300,000. So that by whatever process we may work out the problem, there is a saving to the children of Atlanta of from \$150,000 to \$300,000 due to our mouth hygiene program.

There is another very distinct saving which we have not considered. Previously, our principals and teachers spent much of their time in trying to alleviate pain and suffering, due to toothache. This time, of course, was taken from the teaching activities of the school and lowered the efficiency of the school program. Now our teachers declare that they never have any use for clove oil or other toothache medicine, and the time of the teacher thus saved is used for better instruction.

Another very important matter is the saving in time of the life of the child. According to one of the most eminent physicians of America, such a program as we are working out in Atlanta will add five years to the life of the child. If this is true, then five years added to the life of each individual child and say 50,000 children as a basic number, you will realize that in a single generation we will save five times 50,000 years, which would mean 250,000 years of time. Such a program is certainly eminently worth while.—*Willis A. Sutton, Supt. of Schools, Atlanta Public Schools.*—*The Florida Dental Journal*, 8-37.

• "GROUP MEDICINE": AN EXPERIMENT
IN "CO-OPERATION" BY U.S. EMPLOYEES

WORD comes, if present plans materialize, a new District of Columbia Corporation, the "Group Health Association," will open a fully equipped clinic in Washington for 2,000 employees of the Federal Home Loan Bank Board and the agencies such as the Home Owners' Loan Corporation, coming under the direction of the Board.

Members of the medical profession have expressed keen interest in the venture on the ground that it may be "an entering wedge into the practice of socialized medicine."

Just what is the set-up of "The Group Health Association"?

"Chief emphasis of our organization," one of the officials of the Association pointed out last week, "is preventive, rather than curative medicine. We hope to encourage prevention of illness by periodic medical examination and by offering facilities whereby our members can prevent illness from developing. At the same time the efficiency of all employees will be maintained, thus benefiting the Federal Home Loan Bank Board."

"Men with families," said this official, "by payment of \$3.30 a month will be entitled to complete medical service from the clinic. Single persons can receive benefits by payments of \$2.20 a month."

"The service," it was explained further, "will include medical and surgical examinations, including examination in special departments such as for eye examinations, laboratory tests and x-ray examinations. In each case complete medical and surgical care would be given.

"Also the members would be entitled to have visits of doctors, either at their homes or at the clinic, nursing and ambulance facilities. Hospitalization is to be given in a semi-private room for a period of three weeks during a single illness, without additional charge.

"The clinic under present plans will be opened the latter half of September and will be provided with the most modern diagnostic and treatment equipment.

"Members will not be restricted to doctors on the staff of the clinic but may select their own personal doctors if they prefer."

Dr. Henry R. Brown, chief of the Tuberculosis Division of the Veterans' Administration, is to head the staff of the clinic. Arrangements have not yet been completed but officials of the Association say it is planned to hire a staff of about 15, including six or seven physicians.

Critics in the medical profession say that the association, and similar plans among private companies, might encourage development of a system whereby medical men would become employees of the State, thus destroying individual initiative.

The American Medical Association went on record at its recent convention against a proposal that all doctors should become officers of the Public Health Service, and that treatments such as inoculation for typhoid and smallpox should be paid for by the Government.

What are the long-range possibilities of the development of the "Group Health Association?"

The charter of the organization is not restricted to employees of the Federal Home Loan Bank Board. Therefore, if the project proves successful it might be extended to the 117,000 Federal employees in Washington and to the additional seven hundred thousand throughout the country.

For the present there is no plan to extend the service to other agencies. Since the clinic cannot be maintained by a small group, it is not considered feasible to extend the plan to branch offices of the agencies under the Board.

The possibilities of the project as a demonstration of this type of medical

service are stressed by another official of the Board, who said:

"The Group Health Association is an attempt to work out on the highest ethical plane and from a scientific standpoint the most advanced steps in clinical medicine. The most modern facilities will be provided. We are hopeful the clinic will provide a most worth-while demonstration."

Since the clinic will stress preventive medicine, say its sponsors, and will provide services at a reasonable cost, the individual will be enabled to provide many medical services for himself and his family which he otherwise might put off.

It would provide the advantage, it is pointed out, of giving a patient the services of a number of specialists who would work together. Thus, it would be unnecessary to go from one specialist to another—sometimes in an office at a distance—to get treatment, as is the case in many instances under present conditions.

Dr. Brown, the director of the Association's medical activities, contends that, if the entire population of this country could be educated to the need for preventive medical care and for medical attention to preserve the best possible health, an additional 40,000 doctors would be needed. He argues that development of projects such as that of the Association would give additional doctors employment.

Results obtained in clinics similar to that now proposed for Washington, it is claimed by the sponsors, show that the amount of illness among the members has been decreased sometimes as much as one-half.

The Group Health Association, its officers say, does not plan to treat industrial accident cases, surgery of the brain or nervous system, or to furnish additional treatment after its medical director

recommends confinement in an institution in mental, tubercular, drug or alcohol addiction cases.

Members are to be required to pay for medicines, drugs, surgical appliances such as orthopedic devices and crutches, eyeglasses, artificial limbs and hearing devices.

They also are to be required to pay for radium and deep x-ray treatments; dental work, oxygen tanks or tents and materials; blood transfusions and special nursing service if not ordered by the medical director.

The Corporation, its officers say, plans to make an effort to obtain medical services and items for which the member is required to pay at reduced rates.

Activities of the Association are to be financed from membership dues.

The Board justifies its endorsement of the plan on the ground that the program will improve the efficiency of its employees.

Eleven trustees will direct the affairs of the Association. Two of these trustees are to be selected by the Board and the remainder are to be elected by the members of the Association.

John H. Fahey, chairman of the Federal Home Loan Bank Board, has endorsed the proposed medical service, saying in a letter to William F. Penniman, president of the Group Health Association:

"The action of so large a number of employees of the Federal Home Loan Bank Board and its agencies in forming a voluntary association for the protection of health is highly commendable.

"As a fellow member of the Association, I bespeak for it a long career of usefulness, with the active co-operation of leaders in the medical profession of vision and concern for human and social welfare." — *Glenn Nixon*. — *U.S. News* 8-23-37. — *A.D.A. Press Release Service*.



"Have we been sacrificing public relations for technical procedure and widening the chasm between ourselves and our patients?"

Reproduced by kind permission of "Oral Hygiene".

There is a continual cry for "more and better dentistry" and it is justifiable too. But has anyone ever thought of occasionally changing the cry to "more and better dental patients"?—W. A. Moline, D.M.D., in Oral Hygiene.



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

NOVA SCOTIA



A. W. Faulkner, Halifax

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgcombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

To Know is Not Enough

Over the door of a London hospital there appeared for years this thought-provoking motto—"If we are still to stand we cannot stand still." Standing still means stagnation in business as in every department of human life. It has been thus down the ages and it is equally true to-day.

With this issue of the Journal we commence Volume IV of the JOURNAL OF THE CANADIAN DENTAL ASSOCIATION and while we are not forgetful of the faults as well as the accomplishments of the past, we are filled with a new enthusiasm over the vistas ahead, the new problems which confront us, the new opportunities for service to the dental profession of Canada, as well as the old problems yet to be solved. We, as a profession, cannot stand still but must press forward to higher planes of achievement.

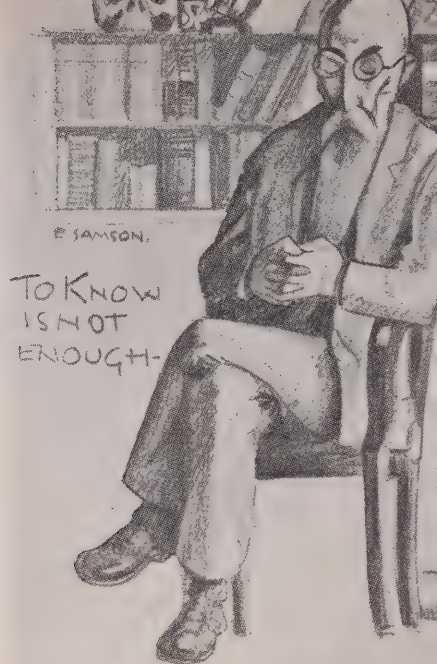
That we have problems staring us in the face is beyond question, problems which gnaw at the very vitals of the practice of dentistry. What are some of these difficulties and what are we going to do about them? One of these dilemmas is pictured most graphically in the drawing which appears on the last page of the Forum Section of this issue of the Journal. We attend conventions and thus improve our technique for making fixed bridges and gold inlays, then return to our offices and find that there are very few of them to

be made. As a prominent British authority has said, "What is the use of teaching our dental students to produce a fine type of dental restoration when in the panel type of practice they are never called upon to produce this type of work? I say of what use is it to teach our men a better type of technique at a convention if they are not going to have the opportunity of putting it into practice?"

Read "The Hidden Treasure" also appearing in this issue, which sums up so clearly this great problem facing us at the present time. It isn't that people do not need our service. They do. It isn't that people cannot afford our service. They can. It is because they are more interested in many other things which have been presented to them in an attractive garb while we, as dentists, have made little effort to place mouth health upon a pinnacle in the minds of the public, a distinction it should rightly enjoy. Edward Samson describes the situation very clearly in these words:

"It provides a comforting feeling of superiority to sit back among one's books and rest in academic dignity until patients beg for our assistance. But this "splendid isolation," while providing a certain smugness to the individual, causes dentistry to fail in its first function — that of serving the nation's mouths. However much we may bemoan the fact, the modern masses will not ask for dental treatment unless they are taught to ask. When the dental curriculum includes a study in mass psychology and the ways and means of publicising our hard-won skill, then and only then will the achievement of our greatest ideals begin to take shape. *'To Know Is Not Enough'*; others must be acutely aware of our knowledge. Skill is not sufficient unless those others believe in its necessity. Dentists must know themselves and discover how far they are able to pass on all they have received. There can be only one system of doing this and that is by advertisement; or for the more sensitive minds—propaganda; or again, for the very squeamish ears—*peaceful penetration*. Whether through the individual or through city, provincial or national organizations, dentistry must contact those who must be made to desire its service." Yes, this is perhaps the greatest problem facing our profession to-day. You cannot solve it. I cannot solve it. You and I, however, can solve it, if we will get behind our national dental organization and conscript the talents of the most capable men in our midst to do this job for us. Are we ready to undertake this task or are we going to continue to allow the manufacturers of dental products to take care of our publicity for us, write our copy and pay the account? On the other hand are we going to support adequately and even generously our Canadian Dental Association, the only body in Canada capable of attacking the problem? Are we going to continue to rely largely on educating the public in the dental office, when the large majority of people rarely see inside our offices?

Are we going to continue to rely upon the writing of pamphlets and educational articles which are never read? Are we still going to rely on local efforts, addresses to mothers' clubs, parent-teacher associations, service clubs and other organized groups? No, people do not read what they are not



*Reproduced by kind permission of the artist,
Edward Samson, L.D.S.R.C.S., Eng., F.C.S.
and Dental Magazine and Oral Topics.*

interested in and do not come to hear what they would rather avoid. This is not the answer. The problem is that the public has never been appealed to on a proper basis and all our wonderful technique and ability goes to waste if we have not won the public favour.

A more favourable attitude of the public towards the dental profession must be created; we must arouse a desire within the minds of the host of people who need dental attention, yet who never seek it. This desire can assuredly be established and should be and will be when we are prepared to do our part.

A few months ago the Eastern Ontario Dental Association passed a resolution calling upon the official Board of that Province to increase the fees to the C.D.A. At the next meeting of that Board this was done. Perhaps next year this Association will pass another resolution requesting that the fees be again increased, for the time has arrived for dental societies, all over Canada, to rise up and with one voice demand that our leaders provide adequate support for an organization which means so much to every dentist in Canada.

There is another problem of almost equal importance, and that is the question of helping the average dentist to deal intelligently with his patients when they do arrive at his office, handling them in such a way that they will remain loyal and enthusiastic patients for many years to come. How often have I heard groups of dentists in various parts of our country say "We get twenty-five cents, fifty cents or one dollar for extracting a tooth, yes, even a difficult extraction—a minor surgical operation." I am invariably told in

these same localities surgeons obtain thirty to forty dollars for a tonsillectomy. In some localities I am told that very inferior dental work is being done to meet a so-called public demand. One man writes to me from an eastern town and confirms all of these statements and much more, degrading to our profession. He asks, however, a very pertinent question—"What is organized dentistry doing to help us in this dilemma?" Not very much, I admit, but my reply is,—"What are you doing to place organized dentistry in the position where it can do anything worth while?"

With these many difficulties facing us, as a profession, at the opening of 1938 it will be the policy of this Journal to assist in every way possible in solving these problems, editorially and otherwise. We have started a new Section in this issue of the Journal entitled "Practice Management" which will appear whenever material of general interest becomes available. We would urge our members to send in helpful, concise articles for this Section and trust that it may prove beneficial and help us to surmount some of the difficulties which confront us at the present time.

During this coming year we hope, also, to stress the importance of "Children's Dentistry," since no branch of our work is more important. To this end articles from a number of our leading authorities will appear frequently in our publication.

As this Journal, your Journal, enters upon its fourth year of existence we would plead for the hearty co-operation of every member of our Association. Your constructive criticism will be greatly appreciated for it is the Journal, never the editor, that counts. Your contributions to our dental literature will be most welcome, for we must remember that no nation is great which has not a great literature. No profession is great which has not a great literature and so let us put our thoughts, our hopes, our dreams, our prayers into the pages of our official Journal and commit all to the God who never slumbers and never sleeps.

C.D.A. President Tours Western Canada

Dr. R. L. Pallen of Vancouver, president of the Canadian Dental Association, completed a tour of Western Canada, in the interests of the Association, on December 21, when he addressed the Manitoba Dental Association in Winnipeg.

During this trip covering most of the leading cities of Western Canada, our president travelled more than 3,000 miles at his own expense, visiting Calgary, Edmonton, Swift Current, Regina and Winnipeg, a contact which has done much to create a greater interest in the Canadian Dental Association throughout the West.

As long as we have men who are prepared to make such sacrifices in the interests of national dentistry in Canada, we can feel assured that eventually our Association will assume its rightful place in the dental affairs of Canada.

CORRESPONDENCE

To Dr. W. H. Ibberson, Saskatoon, Sask.

I have just discovered an error in copying the Howe Formula in those copies I distributed at the meeting of the Western Canada Dental Society.

You will notice it reads—

3 grains and it should read

3 grams, a mistake easily made. The results will be disappointing until the error is corrected.

I wish you would see that this mistake is corrected in your Journal.

J. M. PRIME, *Omaha, Nebraska.*

NEWS FROM THE PROVINCES

SASKATCHEWAN:

Congratulations to Dr. J. P. Whyte

Dr. J. P. Whyte, of Swift Current, is receiving congratulations from his friends on his recent election as president of the Saskatchewan Amateur Hockey Association. As an executive member of the S.A.H.A. for several years, he has been deeply interested in amateur hockey in the province and well deserves his promotion.

Dr. Whyte, a partner of Dr. Geo. L. Cameron, the immediate past president of the Canadian Dental Association and who has long been active in civic and provincial affairs, is following in the footsteps of his senior partner.

In addition to his latest honour, Dr. Whyte is chairman of the Finance Committee of the Swift Current City Council, Grand Superintendent of the Royal Arch Masons of Saskatchewan, District Commissioner of the Boy Scout Association, Adjutant of the 14th Canadian Light Horse and a past district governor of Kiwanis International.

I.O.D.E. Clinic in Saskatoon

At a meeting of the I.O.D.E. Chapter held in November it was reported that during October, 71 patients, 67 of whom were children, passed through the Fitzgerald Dental Clinic.

Court Case

Found guilty of a second offence under the Dental Profession Act, George J. Verebioff, Verigin district farmer, was fined one hundred dollars and costs, in default three months in Prince Albert jail, by Police Magistrate H. Potter of Melville.

The evidence showed that Verebioff did dental work at his farm. In every case the defendant had taken a signed statement from the individual that exempted liability and also stated that no fees had been paid. However, patients who had been treated testified that they had left money in the house or given gifts to the family. There was no evidence of a fee being handed directly to the defendant.

MANITOBA:

The Manitoba Dental Association

When the Board of Directors of the Manitoba Dental Association were informed that Dr. Pallen, of Vancouver, President of the Canadian Dental Association, expected to visit Winnipeg on December 21 for the purpose of contacting as many of the dental profession as possible so that he might place the facts and factors of the C.D.A. organization before them, it was felt that the matter was so important that we could do no less than call a special meeting of the Association to hear Dr. Pallen's message.

Dr. Pallen has been and gone and of the 125 members of the profession who listened to him there is the unanimous expression of opinion that an understanding has now been arrived at of the value and the necessity of more concrete financial support from all the legal dental bodies of the Dominion so that the C.D.A. organization may function as it should for the benefit of the profession in Canada.

The fact that the Royal Commission on Provincial and Dominion relations expects to receive a brief from a national dental organi-

zation, places the dental profession on the spot and we have to look to our only national organization, the Canadian Dental Association, to handle the emergency.

It is encouraging news to learn from Dr. Pallen that nearly all the Provinces are ready to support the C.D.A. with a one dollar subscription for every registered dentist in each Province. This is a good beginning looking to the near future when sufficient support will be forthcoming to pay a full-time secretary such as the Medical Association have had for years.

Winnipeg Dental Society

At the December meeting the Winnipeg Dental Society was again addressed by a member of the medical profession, Dr. F. W. Jackson, the Deputy Minister of Health and Public Welfare for the Province of Manitoba.

Dr. Jackson with lantern slides showed some interesting figures of the increasing cost to the taxpayer of the services of his department for health and public welfare. The statistics revealed a steady increase in cost over a period of 15 years and estimated a continuance of the increase for several years to come. He said that this increase was really quite unnecessary if the public, when they were well, were concerned enough about public health to make use of the available information regarding prevention of infectious and degenerative diseases.

Dr. Jackson paid a high compliment to the Manitoba Dental Association for its contribution to public welfare by means of the travelling dental clinics throughout the unorganized territories of the Province and said that it set an example for the medical profession to emulate.

ONTARIO:

University of Toronto News

At a meeting of the Senate of the University of Toronto on December 10, Dr. A. J. McDonagh and Dr. Robert Dunlop were elected members to represent the dental profession.

Dean Mason has just announced the appointment of Dr. J. H. G. Harwood of Class '34 to the department of Applied Chemistry and Metallurgy in the Faculty of Dentistry. Dr. Harwood formerly lived in Saskatoon.

Dean Mason was recently elected by the Faculty as its representative on the Board of the Royal College of Dental Surgeons. Dr. Mason replaced the late Dr. C. Angus Kennedy.

Toronto Academy

December 8 was Toronto Academy Winter Clinic.

This new venture by the Toronto Society proved to be most successful. A usual feature in the annual program of the Toronto Academy was an evening of short clinics and demonstrations by guests and members of the association. This year an entire day was set aside for this purpose and guests invited from Montreal, Hamilton and London took part in the demonstrations with the local clinicians. The entire program was in the hands of President-elect Dr. Harold Hoag and his efforts are deserving of high praise.

Quite a splendid fraternal spirit was evident, perhaps because of the informality of the meeting when the men could move about to discuss their problems in groups, and because of the number of visitors from other societies. The following took part in the program:

Dr. George Cameron and Dr. Johnston Abraham from Montreal; Drs. Blair, Campbell, Ferguson, Fuller, Windrum, Barnes, Cummings, McCutcheon, Walden, Wilson, Baker, Giffen and McCrary from London; Dr. S. Philip Greaves, of New York; Dr. Roy F. West, of Seattle, and Drs. MacGregor, Hendry, Margaret Cowan, Martin, Ante, Cole, Harris, Helen Manchester, Crich, Trelford, Morgan, Hugill, Copeland, Dawson, Brooks, Mercer and Marsh, of Toronto. The Toronto dental assistants presented a demonstration of literature suitable for public dental health education.

The Canadian Dental Trade Association sent representatives to exhibit before the profession some of the newer developments in equipment and materials. This feature is always appreciated by the men because one does not have much opportunity of visiting the dental depots.

Canadian Dental Hygiene Council

On December 15 the Canadian Dental Hygiene Council inaugurated an intensive public dental health program in the Province of Nova Scotia on invitation of the Provincial Minister of Health, Hon. Dr. Davies and the

Nova Scotia Dental Association with the co-operation of the Provincial Minister of Education. The Canadian Dental Hygiene Council has carried on intensive mouth health campaigns in every other Province of the Dominion, and Nova Scotia, the last one of the nine, will be taken care of during 1938.

The Public Dental Health Committee of the Nova Scotia Dental Association, under chairmanship of Dr. Gordon Hennigar and Dr. George McIntosh, Secretary, have been working very hard on the program during the last few months. It is expected that the results of the campaign in Nova Scotia will be equally successful with those in the other provinces.

Court Cases

John Rosseau, of Hamilton, recently pleaded guilty to the charge of practising dentistry without a license and was fined \$100 and costs.

Graydon E. Tyrrell, of Toronto, was convicted by Magistrate Jones on December 9 in the Toronto police court on a charge of practising dentistry without a license and was fined \$100 and costs or 30 days.

C.D.A. Congratulations

The Canadian Dental Association congratulates the following members:

Dr. H. A. Stewart was recently elected Mayor of Kingston.

Dr. Fred Conboy was returned for a second term as Controller in Toronto, this time at the head of the poll.

Dr. J. A. Phillips, of Cornwall, was elected Reeve.

Dr. Gordon Millen was elected Alderman to the Toronto City Council.

Dr. H. A. Ross and Dr. Alex Stewart were elected to the Toronto Board of Education.

It is very gratifying to have these members of our profession enjoying the confidence and goodwill of the general public in their respective communities.

The annual meeting of the Canadian Dental Hygiene Council will be held in Toronto on or about January 14.

At its fall meeting, the Board of the Royal College of Dental Surgeons appointed Dr. Ed. Paul librarian for the Board.

The Treasurer, Dr. Harold Skilling, has just announced that the Toronto Academy has 324 members this year. He is just a little disappointed, however, as his objective was 325.

Orillia Service Clubs

In an effort to form a dental clinic in Orillia, representatives of ten service clubs and civic officials met on November 18, with Dr. R. D. Thornton, Toronto, who told of the advantages derived from such an organization.

A committee composed from all the service clubs was formed and it was agreed that a mouth inspection of all the school children would be carried out during the following three weeks.

QUEBEC:

Montreal Dental Club

On November 22, in the clubrooms of the Montreal Dental Club, Dr. J. C. Flanagan gave a very comprehensive paper and table clinic on Mouth Rehabilitation. This clinic was a résumé of that given by Dr. Knapp at the recent 13th Annual Fall Clinic.

Dr. Flanagan, in the short time at his disposal, covered the work as thoroughly as possible, and showed the members numerous models and actual cases, complete, and under treatment, in his own practice. The spirited discussion following his presentation showed how keen was the interest of all the members. Any society which is fortunate enough to induce Dr. Flanagan to appear before it, will find that its members will assimilate a great deal of knowledge about this very important dental subject. Most of the criticism of bite-opening comes from those who have not taken the necessary time and interest to study and do this type of work.

Dr. George Cameron and Dr. J. W. Abraham were the clinicians appearing before the Montreal Dental Club on Monday, Nov. 29. Dr. Cameron gave a clinic on Prosthetic Dentistry, showing in detail his method in carrying through the construction of full upper and lower dentures. His technique was a simplification of the several elaborate techniques taught by various clinicians of world renown. Dr. Cameron's idea was to give the Montreal Dental Club members a technique which would

allow the producing of full dentures, at a fee suitable to the patients of an average dental office. His technique requires five and a half working hours by the dentist.

Dr. Abraham presented a very interesting paper, accompanied by slides and models, on Deciduous Dentistry. His main theme was to recommend the retention of deciduous molars, which become diseased, by root canal therapy, and he backed up his contention by a series of x-ray films taken of actual cases, showing these teeth before and after treatment, and during the process of exfoliation. Both of the above clinicians will appear before the Toronto Academy of Dentistry, on December 8, next.

Following the delivery of the above papers, the members indulged in an oyster supper, the seventy-five present consuming a full barrel of this sea food, together with numerous pots of deliciously hot oyster stew, and it was the early hours of the morning before the meeting finally came to an end.

Headed by the President, Dr. D. D. MacDonald, ten or fifteen members of the Montreal Dental Club will attend the Greater New York Dental Meeting, to be held at the Hotel Pennsylvania, on December 6-10.

■

Anniversary of Montreal Dental Club

On December 14, the Montreal Dental Club celebrated its 40th Anniversary, and held its annual meeting at the Montreal Hunt Club, Dr. D. D. MacDonald, retiring President, being in the chair. Eighty per cent of the members were present, together with Dr. W. S. McLaren, of Ormstown, Que., and Dr. Bloomfield, of Sherbrooke, Que., these two gentlemen being invited guests, as they had been in active practice for over 40 years. Honourary Life Memberships in the Club were conferred upon Dr. D. J. Berwick, Dr. Fred. Bradley, Dr. A. Clifford Jack and Dr. F. M. Wells.

Dr. F. G. Henry gave a short history of the life and work of Dr. J. S. Ibbotson, after which a scroll, signed by all the members present, and a radio were presented to Dr. Ibbotson, as a token of esteem and in appreciation of his endeavours for dentistry in the Province of Quebec.

Dr. J. S. Dohan presented a short paper on Office Management, and answered previously submitted questions on this subject. His paper

was well received.

Election of officers then took place, with the following results: President, Dr. C. H. Barr; President-Elect, Dr. Campbell Morris; Treasurer, Dr. R. B. Bell; Secretary, Dr. A. W. Oliver. Executive members for the ensuing two years: Drs. C. R. Sellar, F. A. Edward and S. A. McSween.

Following the election of officers, further routine business was quickly disposed of, and the party adjourned to the spacious playroom of the Montreal Hunt Club, where good fellowship reigned supreme.

NEW BRUNSWICK:

Moncton Dental Clinic

Sponsored by five service clubs the Moncton Schools Free Dental Clinic began its campaign in November to raise funds for this work. Part of the funds are raised each year at the annual carnival. That event took place in the stadium, and was featured by the hockey battle of the century—between the city firemen and a team picked from the service clubs.

BRITISH COLUMBIA:

Dr. W. N. Kemp Addresses Vancouver Dental Society

The Vancouver Dental Society's guest speaker was W. N. Kemp, M.D., who spoke on the subject "Vitamin Deficiency in Relation to Dental Pathology," which he ably presented and illustrated with slides. We quote in part from Dr. Kemp's address as follows:

"In recent times much additional knowledge has been gained concerning the very important chemical entities which we call vitamins. As physicians we are learning to place greater emphasis on the harmful physical and functional possibilities even in conditions of partial vitamin deficiency. As dental surgeons you are becoming increasingly aware of the important role of vitamins A and D, and possibly C, in matters of dental health.

"Dental caries can certainly be classed today as a multiple dietary deficiency disease. Thanks to the studies of Dr. Percy Howe and Dr. W. A. Price, it would seem apparent that vitamin deficiencies in the diet, not alone tooth cleanliness or environmental factors, are the

most important predisposing causes of dental caries. The remarkable increase in the incidence of dental decay in puberty in children from homes where the diet is known to be adequate would indicate that there often exists some endocrine factor or factors which are not clearly understood."

VITAMIN A

"It is a well established fact that deficiency of Vitamin A is injurious to the health of specialized epithelial tissue. It is therefore not surprising to find that deficiency of vitamin A causes serious defects in dental tissue of epithelial origin such as the dental enamel and the marginal epithelium of the gums.

"If, in the state of pregnancy, there exists a deficiency of vitamin A, there will inevitably occur in the growing fetus an atrophy and metaplasia of that epithelial structure, the enamel organ. Enameloblasts are replaced by stratified squamous epithelium. As a result, there is a loss of enamel and exposure of dentine. Simultaneously, according to Wolback and Howe, the odontoblasts within the tooth atrophy, thus leading to cessation of tooth growth. These facts serve to emphasize the great importance of pre-natal care in regard to the future health of the child's teeth.

"According to M. Mellanby, if the diet was deficient in vitamin A and D and rich in cereals, especially during the period of growth in the early months of life, periodontal disease ultimately developed.

"Vitamin A primarily controls the normal development of the soft periodontal tissues, including sub-gingival epithelium and the underlying connective tissues: while D is largely responsible for normal calcification of the alveolar bone and other hard tissues. The best natural sources of vitamin A are the green leafy vegetables and the yellow pigmented vegetables and fruit."

VITAMIN D

"Vitamin D is concerned with the structure of the teeth and alveolar bone. Lady Mellanby positively has shown that vitamin D is a specific factor in controlling the development of teeth, also that cereals tend to exert a decalcifying effect that is only corrected by vitamin D. It would appear that an adequate supply of vitamin D is of greater importance in determining the perfect development of the

teeth than an abundant or carefully balanced supply of calcium and phosphorus.

"Dr. Milton Hanke claims to have produced evidence that dental caries and pyorrhea are sometimes associated with deficiency of vitamin C alone.

"In conclusion, let me summarize in the words of Eddy and Daldorf. 'All studies to date emphasize that caries is the result of multiple dietary deficiency, not to be cured or prevented by the administration of any one dietary factor to the exclusion of others; but amenable to a combination that supplies adequate of all dietary factors. Of the individual vitamins, the administration of D has been the most effective in curbing caries.'"

Pacific Coast Dental Congress

The generous responses of the selected clinicians from the various states and provinces, for the Pacific Coast Dental Conference, July 4th-8th, has given the Program Committee every hope that this will be one of the best meetings ever held. During the four full days, papers and clinics will be given, and they will be so arranged that every person will have ample time to see them all. Outstanding clinics will be held in groups and repeated when necessary.

Golfers are fortunate in Vancouver. Five courses are situated within five minutes from where the Convention will be held. Ladies will be well taken care of with boat trips, scenic auto drives, golf and other entertainments. You dare not leave the "Better Half" at home. Plan now for a profitable British Columbia holiday.

Dr. J. A. Sampson, Vancouver, presented before the Victoria Dental Society, a paper and clinic, "Utrrescent Deciduous Teeth."

Dr. Emory C. Jones and Dr. E. Fraser Allen are members of the Board of Directors of the Vancouver Golf and Country Club and Quilchena Golf Club.

Dr. R. L. Pallen, President of the Canadian Dental Association, made a western tour of the principal cities in connection with the affairs of the Association.

ALBERTA:

C.D.A. Delegate

Dr. C. M. Fletcher, of Lethbridge, has been appointed delegate for Alberta, to the Canadian Dental Association.

Dr. Pallen Visits Edmonton

We had the pleasure, in Edmonton on December 18, of having Dr. Pallen, at a special meeting of the Edmonton Dental Society, outline to us the complete immediate structure of the C.D.A. and express some of his hopes for the future of the organization. Thirty-nine or forty men turned out and nothing else could have done so much to create a personal interest in the National Organization, as Dr. Pallen's visit. From the remarks I have heard

since and from 'phone calls on the subject, I am quite sure that the C.D.A. is much better understood in Alberta now, than at any previous time.—*R. A. Rooney, Sec.-Treas., Registrar of Alberta Dental Association.*

Dentist Absolved in Damage Action

Because of a hypodermic needle which broke and lodged in her jaw, Katie Spekinsky, a housekeeper, claimed \$6,000 damages in Supreme Court in Edmonton, last November.

The defence claimed that the accident was due to a flaw in the needle and not to negligence.

Mr. Justice Ives dismissed the action without costs.

GENERAL NEWS

University of Toronto

Faculty of Dentistry

Post-Graduate Courses, April 1938

Two post-graduate courses, open to graduates of any recognized university, will be given by the Faculty of Dentistry of the University of Toronto as follows:

Periodontia and Radiodontia—beginning Monday, April 4, 1938.

Operative and Preventive Dentistry—beginning Monday, April 18, 1938.

Each course will cover one month, two weeks of lectures and demonstrations, after which the registrant may, if he so desires, remain for clinical observation and practice.

The fee for each course will be \$100.

Periodontia and Radiodontia

This course will be given under the supervision and direct instruction of Harold K. Box, D.D.S., Ph.D., and S. M. Richardson, D.D.S., assisted by C. H. M. Williams, D.D.S., B.Sc. (Dent.), and D. M. Tanner, D.D.S., B.Sc. (Dent.).

The lectures will embrace a study of the adaptation of the periodontal membrane and supporting bone to changed functional conditions; the problem of tightness of the teeth; and the relation of mobility to simplex and complex periodontitis; the various theories of pocket formation, and the factors that tend to establish deep pockets; the theories relating to the acid-base equilibrium and periodontal disease; salivary and serum calculus formation; stagnant anoxia, edema and cyanosis of the gingival tissues; periodontal therapeutics—a discussion of its main divisions including oxygen therapy, occlusal equilibration, treatment of the periodontal pocket; and necrotic

gingivitis, its symptoms, pathology and treatment. Calcium metabolism with relation to the regeneration of bone will be discussed.

The application of the fundamental principles governing the treatment of periodontal diseases will be demonstrated in the clinic.

The subject of Radiodontia will be taught only with reference to its application to diagnosis and treatment of these conditions.

Registrants for this course will need to bring with them mouth mirror, pliers and scalers which they are accustomed to use.

Operative and Preventive Dentistry

The course in Operative and Preventive Dentistry will be under the supervision and direct instruction of Dean Arnold D. Mason, assisted by R. G. Ellis, D.D.S., B.Sc. (Dent.), L. F. Krueger, D.D.S., M. A. Cox, M.D., J. Kreutzer, D.D.S., B.Sc. (Dent.), and Miss D. F. Berry, M.A.

This course will stress pedodontia, including instruction in pre-natal care and methods used in the prevention of dental disease particularly up to the age of five years. The principles of dental anatomy, histology and cavity preparation with reference to restorative procedures for older children will be studied, and the use of amalgam and inlays in making restorations. Casting techniques, the latest methods of making models and the expansion of investments will be taught.

Registrants wishing to avail themselves of clinical practice will be required to bring their own operative instruments.

Applications should be addressed to:

*Dean Arnold D. Mason,
Faculty of Dentistry, University of Toronto,
230 College Street, Toronto,*

Chicago Dental Society Sets Date For Five Day Meeting in February

The annual Midwinter Meeting of the Chicago Dental Society will be held from February 14-18, inclusive, 1938. The meeting will be held as usual at the Stevens Hotel in Chicago.

An important change in program will be a feature of this year's meeting. One full day has been added to allow members and visitors to examine the host of exhibits and attend the numerous lectures which are being arranged. Other changes have also been made in the program and each of these is designed to make this big meeting more attractive and valuable than ever before.

As usual the Midwinter Meeting will provide an unequalled opportunity for dentists to partake of a valuable scientific program in which every phase of dentistry will be explored. The addition of one day also allows for more clinics which are to be given by practitioners from Chicago as well as from almost every other part of the United States. Numerous changes have also been made in the social program which is such an attractive part of the meeting.

Canadian dentists wishing to attend the above meeting should obtain their 1938 C.D.A. membership cards from the secretary, Dr. J. S. Bagnall, 78 Larch St., Halifax, N.S.—Editor.

Notice of Amendments to the C.D.A. By-laws

Dr. Faulkner has forwarded the following notices of amendment of the By-Laws:

1. That Section 5 of Chapter 1 of the By-Laws of the Canadian Dental Association be amended by deleting the words "voluntary or".

2. That subsections (a) and (b) of Section 1, Chapter 7 of the By-Laws of the Canadian Dental Association be hereby repealed, and the following substituted therefor: "(a) In all provinces the delegates or delegate shall be appointed by the provincial legal organization, unless authority to appoint them be delegated by the provincial legal organization to some other organization within that Province."

3. That subsection (c) of Section 1, Chapter 7 of the By-Laws of the Canadian Dental Association be redesignated subsection "(b)".

4. That Section 4, Chapter 7 of the By-Laws

of the Canadian Dental Association be amended by deleting the words "at least two Canadian Dental Journals chosen by the Board" and substituting therefor "the Journal of the Canadian Dental Association."

5. That a new chapter be added to the By-Laws of the Canadian Dental Association entitled "Official Publication", and reading as follows: "In conformity with Article 2 of the Constitution of the Canadian Dental Association, a Journal under the title of 'The Journal of the Canadian Dental Association' shall be published monthly, or more or less frequently as shall be found expedient. The management and control of the Journal shall be vested in a Journal Committee appointed by the Board of Delegates and subject to the directions given from time to time by the Board of Delegates. The Committee shall appoint an editor or editors, also business manager and any other officers that may be required to carry on the work of publishing the journal and shall determine the nature and scope of the duties and the remuneration of these officers. The Journal Committee and all members of the staff of the journal shall be subject to the control of the Board of Delegates."

—J. Stanley Bagnall, Secretary.

C.D.A. Meeting

The Canadian Dental Association will probably convene in Vancouver in July.

Resolution

Adopted by the American College of Dentists, Atlantic City, N.J., July 11, 1937

WHEREAS, the E. K. Medical Gas Laboratories, Inc., of Bloomfield, New Jersey, have instituted an unprecedented campaign of advertising a dental product, "Aldenol", directly to the public, and

WHEREAS, such advertising curtails freedom of choice in selecting materials which are to be used by the dental profession in rendering an oral health service, and

WHEREAS, the rights and prerogatives of the dental profession are thereby made subservient to commercial interests, and

WHEREAS, if such advertising is allowed to continue it will result in a situation wherein

the choice of dental materials will be dictated by high pressure advertising rather than by the dental profession's collective and individual interpretation of the oral health needs of the public;

THEREFORE, BE IT RESOLVED, that the American College of Dentists protest through every avenue of influence and by all means available to the College, this and all similar lay-advertising of materials used in an oral health service, and

BE IT FURTHER RESOLVED, that a copy of these resolutions be sent to the Editor of every dental publication in America, and to the Trustees of the American Dental Association, with a request for the widest possible publicity of this action of the College, and

BE IT FURTHER RESOLVED, that a copy of these resolutions be sent to the E. K. Medical Gas Laboratories, Inc., of Bloomfield, N.J., and "Times Magazine".

Trade Practices in U.S.A.

Makers of dental, shaving, facial creams and other toilet articles are warned by the Federal Trade Commission that it is a violation of the law to place such products in "greatly oversized cartons" which represent that substantially larger quantities of the product are contained therein than is actually the case.—*Fr: U.S. News Sept. 27, 1937, (A.D.A. Press Release)*.

Radio Program of Chicago Dental Society

On November 17, twenty members of the Chicago Dental Society met in the studio of W G N for a voice test, with one to be chosen, to assist in the production of the dramatic series of playlets to be broadcast in the interests of dental health.

Professional actors are to play all parts of these twelve-minute broadcasts except the dentist which will assure that the productions will in no way be amateurish. The first of these dramatic plays was given on December 10 and was a great success.

Excerpts from New Dental Law of the State of Missouri, U.S.A.

Section 13582. Dentistry defined. When we speak of a person practicing dentistry without a license or under a corporation name, etc., how are we to determine what constitutes the practice of dentistry? The new law makes it quite clear.

"Any person shall be regarded as practicing or attempting to practice dentistry, within the meaning of this chapter, who acts as manager, proprietor, or conductor of a place of performing dental operations, or who, for a fee, salary or other reward paid to, or to be paid to him or her, or any other person performing dental operations of any kind, shall use the word 'dentist' or 'dental surgeon' or the letters 'D.D.S.' or any other letter or title in connection with his or her name, which in any way represents him or her as being engaged in the practice of dentistry or dental surgery, or who shall diagnose, or profess to diagnose or examine and contract for the treatment of, or who shall treat or profess to treat, or advertise as treating any disease or disorder or lesions of the oral cavity, teeth, gums, maxillary bones, or extract teeth, or repair or fill cavities, who shall correct malpositions of the teeth or jaws, or supply or advertise to the public as supplying artificial teeth, plates, dentures or dental restorations, or administer an anaesthetic, general or local, or in any other way engage in the practice included in the curricula of recognized dental colleges: provided, however, that nothing in this section shall prohibit a licensed physician from extracting teeth.

Nothing in this section shall be construed as having reference to the training of students in a reputable dental school.

Section 13588. This section exempts registered dentists from jury service from all courts in this state.—*J. Mo. D.A.*

Mission in Alaska

Several outstanding dentists of Toronto have volunteered to spend their holidays in the Arctic, giving their services free in the interests of the Anglican Mission at Aklavik.

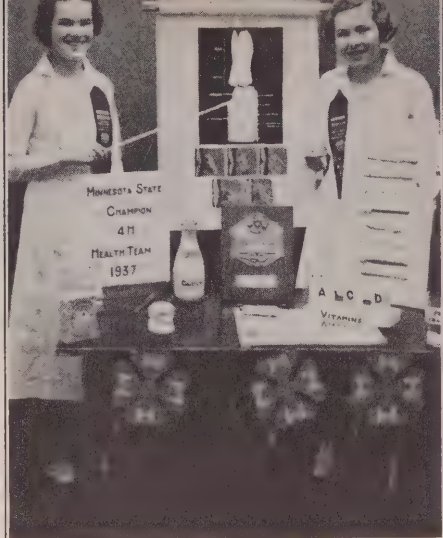
Whatsoever thy hand findeth to do, do it with thy might.—Ecclesiastes.

4-H Club Health Champions in Minnesota

Honors in Dental Health Demonstration work at the Minnesota State Fair this year went to two sisters, Maxine and Marjorie Koons, of Martin County, who scored 96 points, winning first prize.

Maxine, seventeen years old, is a Senior and Marjorie, fifteen years old, is a Sophomore in high school. Both have been in 4-H Club work in the Silver Lake Club of Martin County for five years, their projects having been sewing, cake baking, bread baking, leadership and health. Maxine was reserve health champion of the state in 1936 and Marjorie was health champion of Martin County this year and one of the ten high in the state.

The project here illustrated was worked up from material supplied by the Minnesota State Dental Association and the Child Hygiene Division of the Minnesota Department of Health. The charts used were from the Bureau of Public Relations of the American Dental Association and the food charts from the National Meat Board approved by the American Medical Association. The talk which the girls gave followed the Dental Health charts, bringing out the anatomy of the teeth, their importance to individuals with special attention to the results of tooth loss. Foods were discussed from the standpoint of their value to proper tooth building with emphasis on the fact that good tooth foods are simple and easily obtained in the country and city home. The third part of their talk was devoted to a practical demonstration on a large cast of teeth and also in their own mouths of one of the



Maxine and Marjorie Koons

4-H Club health champions for 1937 as they appeared with their Dental Health Demonstration exhibit at the Minnesota State Fair.

accepted methods of proper brushing of the teeth, the selection of a good tooth brush and the making of a simple, inexpensive tooth paste. The talk was greatly enhanced through the fact that the two girls are living examples of what they demonstrated — Health and Healthy Mouths. Both have good health and perfect teeth, excellent illustrations of practicing what they preached.

This demonstration is being used throughout the county as part of the Dental Health project of the public schools this year. Commendation of the dental profession should go to these girls for their interest in Dental Health Education among the 45,000 4-H Club members in the State of Minnesota.—*North-West Dentistry, Oct., 1937.*

There are three or four practical things worth doing while at school. First, keep your bodies lithe and fit; second, memorize as many lovely lines of English prose and poetry as you can—you may only discover the meaning later on. Third, get inside a foreign language now, it is a far more difficult task later on. Finally, keep alive your curiosity; question what you are told—but pick out some period of human history and master it.—Kenneth Lindsay, Parliamentary Secretary, Board of Education, in a recent speech.

IN MEMORIAM

Arthur Davenport Black, A.M., M.D., D.D.S., Sc.D.—of Chicago, Illinois, U.S.A., aged 67, died on December 7. The Canadian Dental Association joins hands with the other dental associations of the world in paying tribute to this great son of a great father. The world of dentistry has suffered a distinct loss in the passing of this great educator, executive, author and dentist. Having served as Dean of the Dental School of Northwestern University for a number of years he was instrumental in promoting many important changes in the methods of teaching and in curriculum study. His work on the Survey Commission which made such a comprehensive study of dental school courses, was one of his major contributions to his profession. His greatest achievement, however, was his accomplishment in the realm of dental literature and in building up the splendid library at Northwestern University. Perhaps next to this was his brilliant achievement in promoting and managing the Chicago Centennial Dental Congress in 1933 which drew a registered attendance of 12,500 dentists and guests from all over the world. As President of the Congress, Dr. Black signed the first contract with a Century of Progress Exposition for exhibit space in the Hall of Science to occupy more than 3,000 square feet.

In the death of Dr. Black dentistry has lost one of its most distinguished leaders and beloved friends, who has brought undying fame to himself and great credit to his profession.

•
Joseph Alfred Pinault—of Montreal, Quebec, died early in December. He was titular professor of the Faculty of Dental Surgery of the University of Montreal. The funeral was attended by the members of the University staff at St. James Church and a large number of other distinguished men.

•
Fred L. Bass—of Calgary, Alberta, died December 14 from gas fumes pouring from a broken vent in a gas water-heater in the basement of his home. His wife also succumbed, and his daughter was removed to a Calgary hospital.

G. A. Bellanger, of Montreal, Quebec, aged 50, died suddenly on November 17. He graduated from Laval University of Montreal.

Many dentists attended the funeral at St. Germain d'Outrement Church.

Dr. Bellanger is survived by his widow and two children.

■
Yvon E. Gaudet—of Moncton, N.B., aged 45, died on November 19. He graduated from Tuft's University in Boston and then commenced practice in Moncton where he made many friends.

At one time he was president of the New Brunswick Dental Association and also of the local society. He was also an energetic member of the Elk's Club and had always taken a great interest in athletics. For some time during the Great War he was an officer in the Canadian Army Dental Corps.

Dr. Gaudet is survived by his widow, two brothers and one sister.

■
Peter Charles Creegan—of Beachbury, Ontario, aged 80, died on December 11 from a heart attack, while visiting in Hamilton. He graduated from the R.C.D.S. in 1881 with the first class to complete the course in this institution. He practised at Thorold and later at Beachbury.

Dr. Creegan was organist in the Anglican church for 25 years, a member of Thorold Masonic Lodge, and an ardent curler, tennis and lacrosse player in his younger days.

•
Cyrus Hallman Zeigler—of London, Ontario, aged 78, died December 22 following a paralytic stroke. For the past 28 years he has served on the public library board and was chairman at the time of his death. For six years he was a member of the Board of Education.

Dr. Zeigler practised in London for 44 years, retiring three years ago. He graduated from the University of Toronto in 1887. In 1916 he was District Deputy Grand Master of the Masonic Grand Lodge of Canada for the London District.

Surviving are his widow, a son, one brother and two sisters.

. . . SECTION FRANÇAISE . . .

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Editorial



Déjà nous entrons dans notre quatrième année et la crise qui achève de bouleverser le monde n'a pas encore réussi à tuer notre Journal. C'est donc qu'il est né viable. Les choses durables ont toujours des débuts difficiles. Si c'est bien là un indice de longue vie, réjouissons-nous, car les épreuves ne manquent pas.

Nous sommes donc heureux de souhaiter une bonne et fructueuse année à tous nos lecteurs.

LA DIRECTION.

Docteur Alfred Pinault

ENCORE un de fauché avant d'avoir accompli la tâche proposée. Qui aurait jamais cru?

Né en 1891 à Sacré-Coeur, il fit ses études au séminaire de Rimouski d'où il sortit bachelier. Inscrit à l'Ecole dentaire de Montréal à une époque où la pénurie de manuels et le nombre trop restreint des professeurs rendaient l'enseignement difficile, il ne tarda pas à devenir, après ses maîtres, l'élève le plus consulté de sa classe.

C'est ainsi que je l'ai connu en fouillant et discutant Roussel pour en tirer ce qui nous serait le plus immédiatement utile.

En 1918 il sortit premier de sa promotion avec la distinction "Maxima cum laude". Aussi dès 1921 revenait-il à l'Université comme assistant aux cours de prothèse. A peine avait-il eu le temps d'entrevoir la tâche qui l'attendait que la maladie du Dr Gendreau lui jeta sur les épaules tout le fardeau de cet enseignement. La science dentaire à cette époque avançait avec une telle rapidité qu'il ne fallait rien négliger pour être à point. Il semblait que tout était à faire. Il ne s'effraya pas. D'une santé robuste, ambitieux par tempérament, homme d'ordre et de méthode, doué par surcroît d'une extraordinaire habileté manuelle, il se mit à l'oeuvre, et tout de suite on sentit que la chaire d'enseignement de prothèse allait connaître des progrès dignes de ce temps. Il acquit un tel bagage de connaissances et visait tellement à l'idéal dans l'enseignement comme dans sa pratique privée, que souvent les novices le perdaient de vue. Ce fut en un mot un excellent professeur et l'un des meilleurs praticiens de notre époque.

Il travaillait trop. D'une ponctualité exemplaire à son cours du matin, il se dépensait au laboratoire ou à la clinique jusqu'à midi. De là il se rendait à son bureau pour se consacrer à sa clientèle et comme tous les professeurs de carrière de notre faculté, devait travailler tard le soir pour boucler son budget.

Enseigner et pratiquer fidèlement ses leçons ne lui suffisait pas. Il voulut aider les nôtres en travaillant au progrès scientifique de notre profession. Il fut un des membres fondateurs et président de la Société dentaire de Montréal. C'est sans compter qu'on le vit se dépenser à l'organisation de tous les congrès des dentistes de langue française d'Amérique du Nord. Il était depuis plusieurs années, membre du bureau des gouverneurs des dentistes de la province de Québec. Et nombre de confrères lui seront reconnaissants des cours de perfectionnement qu'il leur donnait chaque année.

Il devait un jour payer la rançon d'un tel labeur. Depuis quelques mois, il se plaignait de sa santé. Il aurait bien voulu prendre des vacances, se reposer un peu. Mais allons donc! Est-ce permis à un professeur d'Université? Non, faute d'argent comme les autres, il s'en passait. Nous n'aurions jamais cru qu'il succomberait si tôt.

Tous les confrères s'accordent à dire que nous perdons en lui un ami sincère et loyal. Quand on avait gagné sa confiance il l'accordait inébranlable. Et pour employer une expression que l'on retrouve dans toutes les bouches: sous cette rude écorce se cachait un coeur d'or. Qu'il repose en paix.

Dr. A. Thibandean.

La Dent, Organe de Mastication *

par GASTON GUERARD

Docteur es-sciences de l'Université de Paris; Professeur à l'Ecole Odontotechnique.

616,314: 56. La vie est un tourbillon dans lequel la forme est plus importante que la matière (G. GUVIER, *Règne animal*, T. I).

APRES avoir montré les différenciations primitives du cône dentaire originel en vue de la préhension, du broiement et du combat, nous allons enfin et grâce à de nouveaux perfectionnements, assister cette fois à l'apparition d'un organe de mastication.

Ce dernier système dont les véritables spécialisations sont tardives se montre cependant très tôt dans la série des êtres, spontanément et sans transition réelle. Ensuite nous observons à son égard comme une lacune, et si nous considérons dans son ensemble l'histoire évolutive du système dentaire nous voyons la dentition hétérodonte complète (c'est-à-dire montrant à la fois incisives, canines et molaires) apparaître en même temps que s'épanouissent les mammifères et dès l'éocène inférieur.

Les *Cotylosauriens*, reptiles théromorphes de l'époque permienne de l'ère primaire, qui se montrent comme les descendants directs des batraciens stégocéphales, c'est-à-dire comme les formes reptiliennes les plus inférieures, possèdent des dents encore toutes semblables mais logées dans des alvéoles. Chez les autres théromorphes elles vont se différencier brusquement et déjà chez *Procolophon* le polymorphisme s'annonce par les dents postérieures, et à mesure que nous nous éloignons du type amphibien, avec les *Thériodontes*, la différenciation s'accroît et se précise jusqu'à rappeler la denture des mammifères carnivores, de chaque côté nous remarquons en effet un crochet qui est la pseudo-canine avec en avant les

pseudo-incisives et en arrière les pseudo-molaires.

Nous savons qu'à cause de cette ressemblance, les thériodontes ont été rapprochés des premiers mammifères inférieurs les *Protothériens*, animaux de petite taille et d'organisation primitive, surtout connus par leurs dents et leurs mâchoires. A leur tour ces derniers sont regardés comme les ancêtres de tous les mammifères; datant de l'époque secondaire ou des couches tertiaires les plus reculées, le plus anciennement connu d'entre eux est *Dromatherium* qui appartient au *Trias*, ce mammifère se montre donc le plus rapproché de la souche originelle, ces dents en nombre supérieur à 44 (1), sont de quatre sortes et perfectionnent l'ébauche présentée par les Thériodontes. Toutefois la forme de ces organes est encore très simple, c'est le type haplodonte, c'est-à-dire primitif, mais les molaires coniques présentent de petites pointes en avant et en arrière. Ces pointes davantage développées chez *Amphitestes*, *Triconodon*, vont nous conduire au type *triconodonte* ou *tricuspidé* pour nous amener enfin au type *trituberculaire* ou *trigonodonte* annoncé par *Spalacotherium* et *Amphitherium*. Les 3 tubercules alors disposés en triangle représentent ce qu'Osborn a appelé "le triangle primitif", lequel serait le point de départ de toutes les transformations à venir par l'adjonction de talons et de lobes nouveaux, adjonction qui se fait d'avant en arrière pour les molaires inférieures et de l'extérieur vers l'intérieur pour celles du haut et c'est ainsi que nous obtenons la

* Suite et fin des études précédentes sur la *Dent primitive*:

La dent organe du tact (R.O., mars 1929).

La dent organe de préhension (R.O., sept.-octobre 1930).

La dent organe de broiement et de combat (R.O., février 1931).

(1) Ce nombre est celui de la formule type des formes les plus archaïques.

dent quadri, quinze ou sextotuberculée, dernière étape à laquelle Osborn a voulu aboutir en partant de la dent conique. Il nous paraît cependant que cette évolution facile à constater jusqu'au triangle primitif, ne se continue plus d'une façon régulière et progressive par la suite. Nous observons en effet chez des formes primitives très voisines et très généralisées de l'éocène inférieur, des molaires indistinctement compliquées et passant de 3 à 6, ou à 4 ou à 5 tubercules, sans aucune progression généalogique.

Dès lors voici la Denture hétérodonte *complète* définitivement formée, et au Crétacé les véritables marsupiaux vont déjà présenter diverses variations de leur appareil masticateur suivant les régimes. Les mammifères de l'éocène accentueront ensuite ces premières dispositions, et à tel point, que les recherches des paléomammalogistes seront surtout basées sur l'étude des dents, et que les naturalistes les utiliseront désormais pour la division des ordres.

Ajoutons enfin pour terminer, que l'appareil masticateur n'est pas spécial aux mammifères, non plus qu'aux Thériomorphes, certains poissons présentent également des dents différenciées en vue de la mastication et même chez le Sargue la denture est presque complète et montre avec des molaires broyeuses, des incisives qui chez certaines espèces ressemblent à celles de l'homme.

Ceci dit, voyons maintenant quelles conséquences il nous faut tirer des faits qui précèdent: en premier lieu, s'affirment toutes les remarques antérieurement présentées, principalement ce qui concerne les rapports entre organe et fonction, les modes d'évolution, la discontinuité et la variabilité observées dans le déroulement des systèmes, etc. . . . Aussi allons-nous borner cette seconde partie de notre étude aux observations uniquement provoquées par l'apparition de la dent masticatrice, et ensuite réunissant en un même faisceau

toutes les conclusions partielles que nous avons été appelés à formuler depuis le début de nos recherches, nous présenterons la conclusion d'ensemble qui devra les résumer.

— Tout d'abord signalons l'erreur classique qui consiste à dire que les vertébrés inférieurs sont *homodontes* et la plupart des mammifères *hétérodontes*. Nous avons vu des poissons à ce point de vue mieux pourvus que des mammifères.

— Le régime alimentaire modifie incontestablement la morphologie du système dentaire, mais sans pour cela toucher à l'organisation générale d'un type spécifique. Les marsupiaux ont des dentures d'herbivores, de carnivores ou de rongeurs mais ne se transforment jamais pour donner un type nouveau appartenant à l'un de ces ordres.

— Un régime identique ne provoque pas fatalement une même denture dans des classes différentes; les *warans*, reptiles géants qui vivent encore dans l'île de Cornodo, carnivores d'une puissance et d'une férocité qui surpassent celles du lion, du tigre (les plus spécialisés des carnivores chez les mammifères), ont une dentition *reptilienne* qui est toute différente de la denture des carnivores à mamelles.

— La dentition hétérodonte des mammifères est un appareil nouveau et qui ne dérive pas généalogiquement du cône primitif, la paléontologie ne nous apprend d'ailleurs rien sur l'origine des classes et des ordres et toutes les transformations se passent à l'intérieur des types formels.

— Tous les caractères types des différentes sortes de denture sont formés par préadaptation, d'un seul coup, et les lois de l'organisation exigent qu'il en soit ainsi.

La denture humaine apparaît d'emblée avec un type formel et spécial dès que se montre le type hominien.

— La spécialisation a diminué le nombre des dents, mais sans régression généalogique obligatoire en dehors des catégories inférieures de la systématique.

— L'apparition de la première dent vraie ainsi que chaque grand changement dans la denture des vertébrés sont synchroniques avec de nouvelles périodes géologiques, et par conséquent accompagnent des *associations biologiques* différentes, le changement de milieu, flore, faune, etc., durent en effet influencer nécessairement les divers types d'organisation.

— Pour cette raison, l'évolution générale des dents se distingue des évolutions partielles, et les systèmes se "*remplacent*" sans qu'il y eut entre eux succession héréditaire.

Conclusions

Après avoir suivi l'histoire de la dent primitive et décrit les étapes fonctionnelles de l'armure buccale, si nous nous demandons enfin quelles conclusions la *Biologie* peut tirer des enseignements qui précèdent, nous serons surtout frappés par l'importance de la MORPHOLOGIE BIOLOGIQUE dans les questions intéressant la structure de l'organe dentaire.

La denture d'un être vivant n'a qu'une durée limitée à celle de l'individu qui la possède, mais par contre la *forme* (1) qui appartient à cette denture connaît une durée illimitée et peut être d'une longévité considérable. C'est donc principalement l'examen de cette *forme* qui doit nous permettre d'établir des différences réelles ou de fixer des rapprochements, et c'est à elle que nous allons nous attacher pour l'élaboration de nos conclusions.

10 La forme d'une dent n'intéresse pas seulement sa configuration mais aussi son activité fonctionnelle, ce qui veut dire que *forme* et *fonction* sont inséparables, adaptées et toujours SUFFISANTES à une

espèce, il n'y a pas un effet de fonction dentaire rudimentaire exigeant une dent rudimentaire. Le poisson possède une simple dent préhensible parce qu'elle suffit à son organisation. Mais il est en outre nécessaire d'ajouter que la *finalité* n'est pas toujours ici obligatoire et des exemples (Babyroussa) nous montrent parfois absence de fonction de l'organe ou désordre, nous devons donc à notre première remarque ajouter encore celle-ci: tout organe ne possède pas nécessairement une fin.

20 Si nous envisageons la structure anatomique des différents modes de denture, nous sommes frappés par la grande quantité des modalités utilisées pour la préhension, le broiement, l'attaque et la mastication alors que la quantité des *types d'organisation* est au contraire des plus restreintes. Pour expliquer cette observation nous remarquerons que l'effort qui produit toutes ces variétés est un effort de conquête pour utiliser tous les moyens disponibles à l'entretien de la vie, les marsupiaux deviendront rongeurs, carnivores, herbivores; des primates acquerront des dentures de rongeurs, etc., il y a là un effort dans le sens de l'accroissement des espèces et non dans le sens de leur transformation ou de perfectionnement. L'acquisition des formes dentaires nouvelles correspond en un mot à la multiplication des espèces et non à des changements de types.

30 La plupart des formes sont indépendantes les unes des autres, chaque forme représentant un type fonctionnel propre (dent préhensible, dents des rongeurs, ruminants, carnivores, etc.). Et nous avons rarement rencontré, sauf à partir des familles, un type morphologique nouveau réalisé par une simple modification ajoutée au type précédent. D'ailleurs, plusieurs types d'organisation s'étant formés presque en même temps à

(1) Par ce mot nous n'entendons pas seulement la configuration extérieure mais aussi les corrélations observées.

l'apparition des premiers vertébrés, des créations organiques ont eu lieu en même temps, chaque armure buccale a donc correspondu à un type morphologique propre et spécial.

40 Une dent n'est pas un organe indépendant et isolé, c'est une modification locale de la muqueuse buccale, intimement liée à la structure générale, et chaque fois que la fonction dévolue à l'organe dentaire le modifie, ou l'augmente d'un nouvel attribut, de nouvelles dispositions anatomiques se manifestent en même temps; c'est de la sorte par exemple que la denture complète est contemporaine de la classe des mammifères. Chaque type nouveau présente donc des caractères propres et qui ne sont pas des caractères de transition, la dent chez les vertébrés inférieurs est surtout un crochet, chez les mammifères c'est un organe de mastication. Nous pouvons donc dire que lorsque se réalise la forme de l'être une denture convenable apparaît en même temps, et la forme de la dent agit sur la forme des mâchoires, les muscles mas-

ticateurs, celle des os de la tête, etc., ce qui confirme cette opinion que l'être n'a d'explication qu'en lui-même et n'est pas que la simple étape d'une évolution générale.

50 L'action du milieu agissant sur le système dentaire a pu aider à la création d'espèces nouvelles, elle n'a jamais aidé à la formation de types nouveaux. C'est pourquoi vouloir adapter le transformisme aux variations dans la structure des dents ne serait que généraliser des observations limitées.

60 Enfin le passage graduel d'une denture à l'autre est impossible entre des types d'organisation différents puisque chacun de ces derniers n'est viable qu'en raison de la corrélation de ces organes.

L'étude comparée du système dentaire ne saurait donc venir en aide à la théorie de la descendance telle que la conçoit le transformisme total, puisque chacun des systèmes examinés apparaît comme un état d'équilibre *morphologique* qu'il ne modifie que très peu une fois obtenue sa constitution essentielle.

Sur Deux Articles du "Dental Digest"

IL y a dans le "Dental Digest", numéro du mois de juin, deux articles qui méritent d'être lus attentivement par tous les dentistes. Le premier article, de la plume du rédacteur en chef du "Digest", critique sévèrement le peu de sérieux avec lequel les dentistes considèrent l'anesthésie, en particulier celle au protoxyde d'azote. Le second article, par le Dr Francis A. Bull, de Milwaukee, Wis., nous enseigne une nouvelle méthode pour produire des obturations en amalgame plus fortes.

Dans le premier article, on y fustige avec raison la légèreté et la nonchalance dont font preuve un trop grand nombre de dentistes, qui semblent croire que le

protoxyde d'azote est un jouet. Cet article vaudrait d'être cité tout au long ici même. Faute d'espace, nous devons nous contenter d'en rapporter les passages les plus importants.

Voici comment l'auteur de l'article sur l'anesthésie générale décrit de façon bien dramatique, cette attitude dangereuse vis-à-vis le protoxyde d'azote: "On voit à la porte de certains dentistes annonceurs une plaque sur laquelle se lit le mot "GAZ". (quand ce n'est pas "AIR". Quelle stupidité. On prend les gens pour des imbéciles. Cette parenthèse est de nous.) Très souvent, les gens qui se présentent ainsi dans les bureaux où on administre le gaz souffrent, soit d'hypertension arté-

rielle; de troubles rénaux graves; d'affections respiratoires aiguës ou chroniques, telles que bronchite, amygdalite et même tuberculose, soit, encore de troubles cardiaques. Sans aucune forme d'examen sérieux, on les installe dans la chaise opératoire et on les asphyxie au protoxyde d'azote. Dans la majorité des cas, le dentiste est à la fois opérateur et anesthésiste: d'un oeil, il guette le patient, de l'autre il surveille sa machine à gaz, une main sur le levier de contrôle de l'appareil, l'autre prête à s'emparer du davier. . . . Une telle scène n'est pas faite pour inspirer confiance."

En effet, voyez-vous bien d'ici un chirurgien, dans une salle d'opération d'hôpital, en train d'endormir un patient et s'appêtant en même temps à lui sauter sur l'abdomen avec son bistouri, pour lui enlever l'appendice ou un autre morceau quelconque de son anatomie, et cela tout en continuant lui-même à administrer l'anesthésie. Non, ce n'est pas sérieux, et il est grandement temps que les dentistes prennent les moyens de faire disparaître de leur pratique de tels procédés. Et pour nous faciliter la tâche, l'auteur conseille l'usage plus fréquent de l'hospitalisation, surtout dans les cas de nombreuses extractions ou de chirurgie buccale de longue durée. Mais voilà une autre question, et sur laquelle une voix autorisée devra se prononcer.

On lit plus loin, dans le même article (nous citons le texte même pour en conserver toute la saveur: "It is a form of malpractice to place a patient in a dental chair without previous examination, subject him to a general anesthetic, and send him on his way soon after recovering consciousness." C'est très sévère, mais combien c'est vrai.

La fin de l'article vaut d'être traduite et reproduite en entier. "Les médecins, en général, ont cessé d'administrer l'anesthésie générale dans leurs bureaux. Les dentistes, eux, continuent à donner l'an-

esthésie au protoxyde d'azote et oxygène dans leurs cabinets. Le protoxyde d'azote est un agent trop important en dentisterie, pour qu'on risque ainsi de le faire tomber en disgrâce au yeux du public, en l'utilisant sans prendre les précautions nécessaires. . . . Si on doit continuer à en faire usage dans les bureaux de dentistes, il faudra accorder d'abord une attention particulière aux soins pré-opératoires; de plus, l'anesthésie devrait être donnée par un anesthésiste d'expérience, qu'il soit médecin ou dentiste; et finalement, il faudra être installé de façon à pouvoir permettre au patient de se rétablir complètement après l'opération."

Le second article est d'un ton plus optimiste. Et en le lisant, on se reprend d'enthousiasme pour les obturations en amalgame. De tout temps, on a eu des griefs considérables contre l'amalgame, quelquefois avec raison. Et on n'a qu'à relire l'histoire de la dentisterie pour apprendre qu'aux Etats-Unis, par exemple, il fut un temps où les dentistes qui faisaient usage de l'amalgame pour obturations étaient pratiquement mis au ban de la profession.

Voici donc que le Dr Francis A. Bull, de Milwaukee, Wis., nous enseigne un nouveau moyen pour renforcer les amalgames. Si cette méthode répond à tous les éloges qu'on en fait, le savant dentiste de Milwaukee aura certainement contribué à donner une plus grande valeur aux obturations en amalgame, cela pour le plus grand bien de la profession dentaire, au bénéfice de nos patients. Soit dit en passant, il paraît que 75 % des obturations dentaires se font avec de l'amalgame.

Une des plus grandes causes de la faiblesse, et par conséquent des fractures des amalgames composés, ce serait, paraît-il, la faiblesse transversale de ce matériel. De plus, même les amalgames sur les surfaces occlusales, ont souvent tendance à "lever les épaules". (Dr Théo. Côté). Ceci serait dû aux changements de

température que subirait le mercure, qui forme pratiquement 50% de la masse d'une restauration en amalgame.

Le Dr Bull propose de renforcer les restaurations en amalgame et même en ciment, en y introduisant de petits morceaux d'argent pur en plaque, en s'appuyant sur le rôle que joue l'acier dans le béton armé.

Se procurer de l'argent en plaque, dont l'épaisseur variera de 20/1000 de pouce à 35/1000 de pouce. On coupera cette plaque en languettes de diverses largeurs, de 1 à 5 mm. Dans ces languettes, on découpera ensuite les morceaux de la grandeur requise, ayant la forme approximative de la cavité à remplir, mais plus petits. Pour les cavités composées, on aura, en plus du grand morceau ayant la forme générale de la cavité, un petit morceau à placer au bord gingival et deux autres morceaux plus petits, en forme de triangle, pour les angles axiaux.

Voici, en résumé, la méthode du Dr Bull. Remplir d'abord une partie de la cavité avec de l'amalgame frais et condenser comme d'habitude. Introduire ensuite le morceau d'argent, qu'on placera

solidement dans l'amalgame; il faudra probablement employer le maillet automatique pour le faire bien pénétrer dans le corps de l'amalgame déjà condensé. On continuera ensuite à remplir le reste de la cavité, chacun suivant sa technique favorite.

Pour les cavités composées, on suivra la même méthode, sauf qu'il faudra d'abord placer le morceau au bord gingival. Après avoir rempli une partie de la cavité, on mettra en place le morceau ayant la forme générale de la cavité, et finalement, les deux morceaux triangulaires pour les angles axiaux. Dans les cavités, dites mésio-occluso-distales, on procédera de la même façon que pour les cavités composées, sauf qu'il faudra deux morceaux gingivaux et quatre morceaux pour les angles axiaux.

Des expériences de laboratoire établissent que l'amalgame ainsi renforcé, a une résistance aux forces transversales de cinq à six fois plus considérable que l'amalgame ordinaire, soit presque la résistance de l'or coulé.

Yves Lafleur, D.D.S.

Cf/Dental Digest, juin 1937.

pp. 289, 293.

Revue des Revues

par GERARD DE MONTIGNY, B.A., D.D.S., M.S.D.

"L'ANTRE D'HIGHMORE," par Theodor Blum, D.D.S., M.D.

Les affections du sinus que peut traiter le dentiste ne se rencontrent que dans la proportion de dix pour cent; et parmi celles-ci, les plus fréquentes sont: l'ouverture du sinus au cours d'une extraction dentaire, l'invagination de masses tumorales ou kystiques dans le sinus, la pénétration de corps étrangers etc.

Un mode de traitement, qui paraît condamnable est celui qui consiste à pénétrer par le nez pour le traitement d'une affection du sinus d'étiologie dentaire; une ouverture pratiquée à l'intérieur de

la cavité buccale suffit à procurer l'accès nécessaire au traitement.

De plus l'extirpation ou l'ablation totale de la muqueuse du sinus ne devrait jamais être pratiquée, pour laisser en place des îlots de tissu sain, qui aideront grandement à la granulation cellulaire. (The New York Journal of Dentistry, novembre 1937.)

"LE DIAGNOSTIC ET LE TRAITEMENT DES TUMEURS MALIGNES DE LA CAVITÉ BUCCALE," par Leslie M. Fitzgerald, D.D.S., F.A.C.D., Dubuque, Iowa.

Les tumeurs malignes de la cavité

buccale se rencontrent plus fréquemment qu'on ne le croit; et quoique le milieu buccal soit une des parties les plus accessibles de l'économie, les cancers de cette région sont parmi ceux qui causent le plus de fatalités.

Dans le passé, on reconnaissait la malignité des tumeurs beaucoup plus tard. Aujourd'hui, c'est le devoir de la profession dentaire de prévenir et de diagnostiquer à bonne heure les cancers de la bouche.

Les dentistes doivent de plus s'assurer que les patients atteints de ces tumeurs soient traités convenablement et sans retard.

L'examen périodique des dents assure l'occasion idéale pour le dentiste d'éduquer le public sur l'importance du soin de la bouche et sur la prévention des lésions cancéreuses de la cavité buccale.

L'élimination des dents coupantes, des obturations qui irritent les gencives, des dentiers et des ponts qui font trop de pression sur les tissus buccaux et des autres sources d'irritation chronique constitue le premier pas de la prévention des tumeurs malignes. (*Oral Health*, octobre 1937.)

"LA CREATION EXPERIMENTALE D'ATROPHIE OSSEUSE ALVEOLAIRE, AU MOYEN DE DEFICIENCE ASCORBUTIQUE (VITAMINE C)," par Paul E. Boyle, D.M.D., Otto Bessey, Ph.D. et S. Burt Wolbach, M.D., Boston.

Les caractéristiques essentielles de l'atrophie alvéolaire osseuse, produite, soit par la pyorrhée, soit par une déficience d'acide ascorbutique, sont les mêmes et peuvent être rattachées à une non-adaptation de l'os et du tissu conjonctif aux efforts fonctionnels.

Les changements observés dans les tissus périodontaires de cobayes privés de vitamine C présentent un tableau pathologique identique à celui remarqué dans les tissus osseux et conjonctifs, qui

entourent les dents de patients atteints de scorbut ou de pyorrhée alvéolaire diffuse. Le métabolisme de la vitamine C joue donc un rôle important dans l'étiologie de la pyorrhée alvéolaire. (*Journal of the American Dental Association*, novembre 1937.)

"LA CORRECTION CHIRURGICALE DU PROGNATHISME," par Joseph A. Pettit, M.S., M.D., Boston.

1) Les cas de prognathisme, où les dents inférieures surplombent les supérieures d'un demi-pouce ne peuvent être corrigés à l'aide de l'orthodontie;

2) Ces cas prognathes désespérés peuvent être considérablement améliorés, en créant dans le col du condyle un angle en forme d'arc, mobile ou immobile, qui compense pour la forme obtuse de l'angle de la mâchoire;

3) Les déféctuosités anatomiques, qui datent depuis longtemps, demandent un traitement orthodontique post-opératoire de chacune des dents pour l'établissement de l'occlusion des dents latérales;

4) Comme un nombre assez considérable d'interventions de ce genre ont obtenu un succès complet, il semble établi que ce genre d'opération est appelé à supplanter l'ancienne façon de réséquer la mâchoire. (*Journal of the American Dental Association*, novembre 1937.)

"CARIE DENTAIRE UNI-LATERALE," par Charles F. Bodecker, D.D.S., F.A.C.D. et Sol Ewen.

Par carie uni-latérale, on veut dire carie proximale d'une dent n'affectant pas la dent voisine ou dent de contact.

Un examen de 516 radiographies complète de la bouche, prises au hasard, révèle 179 lésions de carie n'affectant qu'une des deux surfaces proximales de dents en contact intime.

Cette constatation nous prouve que la stagnation des aliments, les bactéries et la salive ne sont pas les seuls facteurs dans la carie dentaire. Quelques-uns de

ces cas peuvent s'expliquer par une modification de l'environnement local, mais la majorité démontre que les dents elles-mêmes ont une résistance variable aux attaques de la carie. Les incisives latérales supérieures semblent être celles qui sont les plus sujettes aux caries unilatérales.

Les principaux facteurs influençant la résistance de chaque dent sont, à l'état actuel de la science, les degrés de calcification et les différences de structures. C'est pourquoi, l'étiologie de la carie dentaire renferme en plus de la rétention des aliments, des bactéries et des changements dans la salive, une variation dans la résistance de chacune des dents. (*Journal of Dental Research*, octobre 1937.)

"LES ERREURS DE L'OCCLUSION EN PROTHESE DENTAIRE," par Mm G. Chapey et R. Devin.

Le repérage de l'occlusion centrique, malgré la simplicité de sa technique, oppose parfois au praticien des difficultés imprévues. Les auteurs ont recherché dans ce travail quelles pouvaient être, à côté des fautes de technique banales, les causes d'erreurs susceptibles de troubler le résultat d'une opération conduite correctement. Parmi les raisons les plus fréquemment responsables d'erreurs dans l'enregistrement de l'articulation centrale, nous trouvons: prise d'empreinte inexacte, plaque d'occlusion défectueuse ou s'adaptant mal au modèle de plâtre ou de pierre, dimension fautive des plaques-bases, technique erronée de la prise d'occlusion, mauvaise position du patient sur le fauteuil, commandement mal interprété et mal exécuté par le patient, fatigue du patient, ramollissement inégal du bourrelet occlusal, morsure en propulsion excessive etc.

La responsabilité du patient peut être mise en cause: crêtes douloureuses ou tapissées de muqueuses trop épaisses ou mobiles, réflexes nauséaux, dismorphies

portant à la fois sur les lèvres, sur l'articulation et la musculature de la mandibule.

D'autre part, l'atelier peut être responsable d'erreurs d'occlusion au cours des différentes opérations dont il est chargé pour l'élaboration d'une prothèse dentaire. (*La Revue Odontologique*, septembre-octobre 1937.)

QUELQUES OBSERVATIONS SUR LE PH DE LA SALIVE," par Louis I. Grossman, D.D.S. et Bernard M. Brickman, D.D.S., Philadelphia.

1) Le pH de la salive varie entre 5.0 et 8.0.

2) La variation du pH est plus grande chez les personnes malades que chez les gens en santé.

3) Quoique le niveau de la salive varie avec les individus, il est cependant assez invariable chez le même individu.

4) Durant le jour, le pH de la salive joue entre 6.5 et 6.9; la nuit, la salive est plus acide.

5) Il y a un abaissement du pH après les repas, suivi parfois d'une élévation. (*Journal of Dental Research*, octobre 1937.)

"HORMONES ET VITAMINES", par M. le Docteur Jean Verne.

Il existe entre les hormones et les vitamines un parallélisme des plus intéressants. Leur étude a suivi des voies semblables. Les unes et les autres agissent à des doses extrêmement faibles et paraissent devoir former des composés complexes. Leur insuffisance ou leur absence, de même que leur excès, provoquent des troubles dans l'organisme. Il est d'autre part difficile d'établir une limite exacte entre hormones et vitamines, en se basant sur l'origine exogène de ces dernières, puisqu'on a montré que des animaux pouvaient faire la synthèse de certaines d'entre elles. C'est grâce à leur association synergique ou grâce à leur équilibre exact

de leur action réciproque que sont conditionnés bien des processus biologiques. (La Revue Odontologique, livraison de novembre 1937).

"L'ANESTHESIE GENERALE EN CHIRURGIE DENTAIRE ET BUCCALE",
par Max. H. Jacobs, M.D.,
D.M.D., F.I.C.D.

Dans l'administration du protoxyde d'azote, il faut envisager trois facteurs de succès, qui ne sont pas souvent mentionnés par les auteurs: 1) la susceptibilité; 2) le côté psychologique de l'anesthésie; 3) la médication pré-anesthésique.

Susceptibilité: les patients ne réagissent pas tous de la même façon vis à vis l'anesthésique; leurs réactions diverses sont réglées par la nationalité, la race, le mode de vie, l'atavisme, l'allergie etc. Les uns sont hypo; les autres hypersensibles à la substance anesthésique. Le côté psychologique de l'anesthésie: cette question peut être envisagée tant du point de vue de l'anesthésiste que de celui du patient. L'anesthésiste doit posséder certaines qualités inhérentes à l'accomplissement parfait de sa fonction: confiance en

soi, individualité, connaissance approfondie de son sujet, "sens de l'anesthésie" etc. Tout ce qui entoure le patient, paroles, gestes, atmosphère, décor, doit lui inspirer confiance et abandon.

Médication pré-anesthésique: Les agents en usage sont de trois catégories: les sédatifs, les narcotiques, les hypnotiques. Les hypnotiques ont supplanté les deux premières classes dans l'emploi courant chez les anesthésiques; les dérivés des acides barbituriques sont les plus employés.

L'auteur, en un mot, discute dans un langage clair et pratique tous les éléments d'une anesthésie générale accomplie avec sûreté et sans inconvénients pour le patient. (The New York Journal of Dentistry, livraison de décembre 1937.)

Société Dentaire de Montréal

Séance de février 1938

M. le Docteur Gaston Gosselin, professeur de chimie physiologique à la Faculté de Médecine de l'Université de Montréal, traitera des "Effets des solutions anesthésiques, à base de procaine et d'épinéphrine, sur l'organisme."

Nécrologie

Le Docteur J. A. Pinault est décédé à Montréal, lundi le 6 décembre. Le défunt était âgé de 46 ans. C'était un des professeurs les plus estimés de la Faculté de Chirurgie Dentaire.

Nous prions sa famille d'accepter nos plus profondes sympathies.

Le IVème Congrès des Dentistes de Langue Française de L'Amérique du Nord

Ce congrès aura lieu au début de juin. Ceux qui désirent présenter des travaux et des cliniques, sont priés de se mettre en relation avec le Docteur Paul Geoffrion.

Le Bal des Anciens

Le bal des Anciens de la Faculté de Chirurgie Dentaire, aura lieu au début de février.

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1937-1938

PRESIDENT

R. L. Pallen.....Vancouver, B.C.

PRESIDENT-ELECT

Stephen A. Moore.....London, Ontario

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

R. L. Pallen (Chairman).....Vancouver, B.C.
Stephen A. Moore.....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

R. L. Pallen (Chairman).....Vancouver, B.C.
G. L. Cameron.....Swift Current, Saskatchewan
C. M. Fletcher.....Lethbridge, Alta.
M. H. Garvin.....Winnipeg, Man.
Stephen A. Moore.....London, Ont.
W. H. Woodrow.....Brockville, Ont.
Ernest Charron.....Montreal, P.Q.
Edward T. Bourke.....Montreal, P.Q.
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. E. Blanchard.....Charlottetown, P.E.I.

CHAIRMEN OF COMMITTEES

Dental Legislation.....To be appointed
Dental Health.....H. S. Thomson, Toronto, Ont.
Dental Education.....W. W. Woodbury, Halifax, N.S.
Interprovincial and Foreign Relations.....R. L. Pallen, Vancouver, B.C.
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Archives.....J. Stanley Bagnall, Halifax, N.S.
Journal.....M. H. Garvin, Winnipeg, Manitoba
State Dentistry.....J. S. Lapp, Toronto, Ontario
Indian Problems.....Howard MacDonald, Saint John, N.B.
Ethics.....G. R. Hennigar, Halifax, N.S.
Benevolence.....Leslie Allen, Lethbridge, Alberta
Research.....A. J. McDonagh, Toronto, Ontario
Canadian Army Dental Corps.....G. L. Cameron, Swift Current, Sask.
Insignia.....Kenneth M. Johnson, Winnipeg, Manitoba

All works of taste must bear a price in proportion to the skill, taste, time, expense and risk attending their manufacture. Those things called DEAR are, when justly estimated, the cheapest. They are attended with much less profit to the artist than those which everybody calls cheap

—JOHN RUSKIN.



ERNEST CHARRON, D.D.S.,
Montreal, Quebec.

Past President, Quebec College of Dental Surgeons.
Secretary of Dental Faculty, University of Montreal.

Professor of Exodontia and Anaesthesia.

Delegate for Quebec to Canadian Dental Association.



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, FEBRUARY, 1938

NO. 2

Chronic Arthritis*

by A. ALMON FLETCHER, M.D., F.R.C.P., Toronto, Ontario.

CHRONIC arthritis embraces a group of joint diseases, most of them of uncertain aetiology, and often referred to by the confusing and vague term, rheumatism. Rheumatism has today no very definite meaning and tends merely to describe a type of non-suppurative inflammatory reaction associated with focal infection: in many cases of arthritis, however, the reaction is degenerative rather than inflammatory and in these there is little evidence that focal infection is playing any causative role.

Non-specific disease of joints, which we call chronic arthritis, is exceedingly common, and probably, as a group, it constitutes the most important of our chronic disease problems today. From an economic standpoint, one may say that in countries of the North Temperate Zone, there is by far more invalidism resulting from chronic arthritis, than from any other one cause, and on humanitarian grounds, there is no disease calling more for relief and care by medical measures.

The very term, chronic, carries with it the implication that little can be done for these patients, but statistics show that under conditions of complete medical investigation and adequate treatment, most of these cases, if seen at an early stage of

their disease, can be brought under satisfactory control.

To dentistry, this group of diseases is one of special interest. At times, when focal infection is eradicated, recovery takes place, and there is no reasonable doubt to-day we owe much to the dental profession for the lower incidence of this disease as a result of the development of oral hygiene.

There has been, then, devolved upon our professions, the responsibility of assessing the probable significance of focal infection in such systemic diseases as chronic arthritis, and I plan to review briefly the bearing that medical diagnosis might have when such decision must be made.

It is inevitable, in view of the loose way that the term, rheumatism, is used, that many cases will be so called when no true rheumatic process exists, and in the past such disorders have not always been subject to the rigid criteria of careful diagnosis.

METABOLIC ARTHRITIS

Occasionally the injuring agent to the joints is some metabolic defect. The type example of this group is gout. Gout is by no means rare in Canada, and it might

* Read before the Academy of Dentistry, Toronto, in March, 1937.

seem as if its incidence is increasing. It is seen, almost always, in men in middle and late adult life, usually in those who have lived well and are of heavy build. During the early stage of its course it may be characterized, clinically, with attacks of red, swollen and painful joints, not unlike those of rheumatoid arthritis. It further is likely to show frequent spontaneous remissions and at times we see radical measures in the treatment of some focus of infection given unmerited credit for the cessation of an attack.

Simple laboratory measures are now available for the study of uric acid metabolism, and latent cases can now be readily recognized almost with precision, and appropriate measures of treatment established.

BACTERIAL OR THE SO-CALLED SPECIFIC ARTHRITIS

These cases also tend to come under the group of chronic arthritis, but rigid differentiation from true chronic arthritis is requisite for successful management. The commonest example of this group is that due to invasion by gonococcal infection. As a rule, gonococcal arthritis is readily recognized and the patient himself not infrequently suspects its nature. Acute, severe arthritis, with pain, swelling, redness, in one or more joints, following in two or three weeks upon an acute urethritis, presents no difficulty in diagnosis. However, many chronic and insidious cases are met with, and indeed, the primary gonococcal infection may be present quite unknown to the patient. Such cases are often allowed to drift under the name of chronic rheumatism, and unnecessary radical treatment of focal infection is likely to prolong the course and aggravate the invalidism of the disease. Recently the development of the gonococcal complement fixation test on the blood serum has provided us with a reliable test for diagnosis in doubtful

cases. During the last year or two the advent of fever therapy has made exact diagnosis much more imperative. The treatment of gonococcal arthritis, by artificial fever, has been attended by remarkable success in the majority of cases and should be given in preference to all other methods. In striking contrast is its comparative ineffectiveness in other types of arthritis. This has thrown upon professional men the added obligation for diagnosis at the earliest possible time.

There are other forms of bacterial arthritis, for example, that due to tuberculosis, but mistakes in diagnosis are comparatively infrequent.

The foregoing cases exemplify what might be called types of arthritis of known etiology. By far the larger majority of cases met with in practice are those of chronic arthritis of uncertain etiology—the group which is usually referred to when the term, chronic arthritis, is used. These cases tend to fall into two great groups, namely, rheumatoid arthritis and osteoarthritis.

RHEUMATOID ARTHRITIS

This affection has its largest incidence in women during early adult life, but the disease may appear at all ages and in both sexes. It may have its onset in any joint. It usually begins in the knees or in the fingers and in the latter it presents a fusiform or spindle-like swelling or the interphalangeal joints, which is almost diagnostic. Some cases begin slowly, whereas others present an acute and severe joint invasion from the start; pain and stiffness are the prominent symptoms and they tend to be more severe on rising; there may be aggravation by cold, damp, or other unfavourable environmental influences. Before long the disease tends to invade other joints and, ultimately, many or even most of the joints of the body may be involved. On examination, swelling can usually be demon-

A. ALMON FLETCHER

strated readily in the soft tissues of the joint, which may vary from day to day. X-rays of the joint, in the early stage, may show no significant findings, but as the disease advances, destructive and atrophic changes in the cartilage and in the bone become apparent.

This disease may run a most variable course. Not a few cases recover spontaneously after a few weeks, but the liability to relapse is a feature of the subsequent history of such patients. At other times the illness may drift into a more or less stationary chronic state, without doing much permanent damage. Occasionally destruction and scarring takes place, resulting in limitation of movement or complete ankylosis. It is these exceptional cases in which we see extreme degrees of invalidism which result in a life in a wheel-chair, or a bedridden existence.

While the cause of rheumatoid arthritis has not yet been definitely established, we can recognize many causative factors. In some way the joint lesions are associated with infection. Sometimes the onset may be precipitated by any intercurrent or influenzal-like sickness and in many of the patients foci of infection can be found, treatment of which favourably influences the course of the disease. That such foci of infection play a specific or essential role in the disease is not as yet generally conceded by most workers in this field of medicine. There are many reasons for this—(1) it is well recog-



nized that many individuals, in good health, harbour similar foci, (2) the removal of definitely infected foci of infection may bring about no apparent benefit or result in temporary improvement only, (3) many cases are investigated in which no focus of infection can be demonstrated.

Bacteriological study has almost universally shown that the blood stream, the joint tissues, and the glands draining the joints, are sterile to culture. These considerations remind us that other factors must be operating and clinical experience would suggest that behind what appears to be a simple bacterial invasion from a focal infective process, there appears to be a multiple and complex aetiology—constitution, faulty environment, chronic fatigue, past illness, disturbed nutrition,

disordered digestion, disturbances of the nervous system, metabolism, or the glands of internal secretion—all may take part in the chronic ill-health of the patient and call for measures in management.

In treatment, then, general measures should come first. This is particularly so in industrial practice. In these patients six to ten weeks' rest in bed, along with protection from unfavourable environment, reasonable care, good food, may bring about quiescence of the disorder. tonsils, sinuses, gall-bladder, colon,

Every patient should be surveyed for the presence of focal infection—teeth, tonsils, sinuses, gall-bladder, colon, genito-urinary tract—one or several of these may be the site of a suppurative or infective process, and may demand treatment at a time when such measures are least likely to bring joint flare-up. Tonsils appear to be the commonest focus in young adults, but perhaps after the age of thirty, the teeth appear most frequently to harbour infection. In view of this, there is a temptation to put too much significance on the presence of minimal infection and to carry out unnecessary radical operative measures. Such decision will call for careful judgment and this is no place to attempt to deal with it adequately. Broadly speaking, two general groups of patients can be defined—(1) those in whom there is other evidence of ill-health, and we do not need to fall back on focal infection as an important cause; (2) those individuals who develop rheumatoid arthritis while in otherwise apparently good health: in these latter patients focal infection is likely to play a dominant causative part.

I have said enough to emphasize the necessity for consideration of all causative factors, and further, to emphasize that even with the successful recognition and treatment of focal infection, these patients rarely make a good recovery until some general improvement in their chronic

disturbed health is brought about by medical measures.

OSTEOARTHRITIS

Osteoarthritis is the other common example of arthritis of unknown aetiology. In this disease we are dealing with a pathological process that is degenerative, rather than inflammatory. The most striking clinical feature is the presence of new bone formation along the margins of the joint surfaces, which appears as lips or spurs and which can often be palpated. This disease is widely prevalent among older people and is rarely encountered before the mid-thirties or early forties. Injury and strain are the precipitating agents, and the condition is likely to be seen in joints which are subject to over-use, occupational trauma, or the injury of sport, at a time of life where the joint is not able to withstand such demands upon it. Clinically, it will present a picture of painful joints, the pain coming on usually in relation to activity. The x-ray examination is a method of precision in diagnosis, for the new bone formation shows characteristic shadows in the radiogram.

While it appears likely that physical factors are the immediate cause of the development of this type of joint reaction, sometimes we can discover various influences which, acting upon the joint, have predisposed it to premature degeneration—disturbances of blood supply, any toxic or infective process, some upset in the internal gland system, some metabolic or nutritional disorder, particularly obesity—all these may be playing some part. Focal infection must be of comparatively minor importance: it does at times undoubtedly prematurely age joints, just as it ages individuals, but the relationship of such infection to osteoarthritis is much less basic, and radical removal of infection will rarely exert much influence on this type of joint pain. In patients

with osteoarthritis, as in all patients, and indeed in healthy individuals, gross focal infection should be dealt with vigorously, but lesser degrees of infection may reasonably be ignored. Sometimes we see patients insist on the removal of teeth which perhaps are more or less healthy in the treatment of what is a purely degenerative process, and a lesion in which infection may play no causal role.

Osteoarthritis often lends itself to successful medical control. Orthopedic care and physiotherapy may be valuable: the correction of metabolic or toxic disturbances should be brought about.

Under the heading of osteoarthritis, mention should be made of the nodes that develop on the distal joints of the fingers, usually in women at the time of their menopause: these are the so-called

Heberden's Nodes. While this is a form of true osteoarthritis, it is apparently related largely to the glandular unbalance taking place at this time of life. It is always benign in its course and brings about little incapacity. There is no evidence that infection exerts any aetiological influence.

In summary then, the assessment of the relationship of focal infection to arthritic disease will be influenced by two general considerations—(1) a decision must be arrived at as to whether or not the disease in question is likely to bear some specific relationship to primary focal infection; (2) the presence of minor degrees of infection will be given less significance when there are other contributing factors present which call for more immediate medical care.

Self control is the keynote to poise. You must think before you speak. You must first register an emotion upon your face before it is expressed in words. Any expression to have force and meaning should come out of repose, as colours are most vivid against black. This is the secret of some women's smiles, which are so rare and precious that you work for them as for a prize. . . . Moralists are always disconcerted to see "heartless coquettes" enslaving men so much more easily than the nice simple Susans. The secret is merely that the artful temptresses have conscious control while their more deserving sisters do not.

The greatest enemy of conscious control is runaway emotion. We do things when we're angry, hurried, worried, or afraid, of which, when reason returns, we are ashamed. The complete mastery of self is attained only when, no matter how rapidly an action is performed, it is the consequence of and not simultaneous with a conscious command given by the brain.

In shackling your emotions, don't think that the ideal of poise is the apathy of a Buddha. Poise is like a coiled spring stored with potential power ready to be released at the proper time. It is the conscious control of all one's forces directed with the greatest efficiency.—Gelett Burgess in "Look Eleven Years Younger".

Nobody knows why we die. Science can give no reason for the phenomenon. The life cycle is a complete mystery. Why, after a certain period, do the cells weary of reproducing themselves, so that gradually all the working parts of a human machine wear out, and at last cease to function? There are many theories, but no knowledge. Old age is not a cause of death: it is a disease unknown to the medical dictionary. Failure of a working part is always the cause; and infection, a germ assault, is the most frequent cause of that failure.—C. Patrick Thompson in "Britannia and Eve".

A Survey of Dentistry in China Before the Present Sino-Japanese War

by ASHLEY W. LINDSAY, D.D.S., M.Sc., F.A.C.D.

West China Union University, College of Medicine and Dentistry, Chengtu, Szechwan, China.

UNLIKE other ancient civilizations that of the Chinese developed no tooth restorative nor reparative techniques. China has never had an oral specialist whose tooth-crowns or bridges have been found when tombs are opened, and, if in the future such are discovered, it will, without doubt, be possible to prove that the restorations were placed by another hand than that of a Chinese dental specialist.

Chinese medicine has accounted for all oral diseases and pain by supposing them to be the result of an unbalance of body heat and cold, based on the "Yin-Yang" principle. Therapeutic measures are therefore largely confined to the prescribing of internal draughts of drugs designed to combat chills or fever. If local treatments, such as needling, are given, the aim of the therapy is the same. The local phenomenon of tooth decay was attributed to the gnawing of macroscopical worms. These being seen, everywhere developing in decaying food, it was logical to suppose that they caused tooth decay, and could be eliminated by rinsing out the food debris left in the mouth after meals—a universal Chinese custom. No attempt was made by the physician to repair the damages to the tooth, whatever the cause.

The lack of a specialist in dental care left the sufferers of dental pains and disease without any hope of cure or relief, and thus threw them into the hands of magicians, and quacks.

A brief survey of the groups offering technical dental service in China will

indicate the measure of progress towards the establishing of a modern dental profession.

1. Today, as in the past, one may find in the interior provinces, and probably everywhere in China, women who make a living by removing "tooth-worms." By a neat sleight-of-hand the "worm-remover" presents to her client a worm or worms, according to the fee agreed upon. The gnawing ache of the tooth is usually, at least temporarily, relieved by placing a lime-cement in the cavity, ostensibly to prevent the entrance of more worms, or may it not be that the power of suggestion is the only therapy necessary to produce the cure.

2. There is still to be found in most parts of China the old-styled "tooth-remover." Only such teeth as have been loosened by chronic or acute inflammatory conditions receive his attention. Frequently he is found in busy market places, or in the company of the "out-of-doors" herb sellers, phrenologists, fortune-tellers and the like. You will always recognize his stand by his piles or strings of extracted teeth, which are supposed to attest his skill as their extractor.

3. The group to which he belongs is being replaced by the young man, who follows much the same methods of practice; he has added one or more pairs of western-style tooth forceps; and may rub on the gums of the tooth to be extracted, some anaesthetic, usually cocaine. No estimate can yet be made of the numbers



Reading from left to right, the above group is composed of S. H. Fong, Chinese Vice-Chancellor of West China Union University—Dr. C. K. Chu, Executive Secretary of the Commission of Medical Education under the Ministry of Education, Nanking—Dr. Ashley W. Lindsay, Dean of the Faculty of Dentistry, West China Union University, Chengtu. Dr. Chu is a very influential official of the Government and is very sympathetic towards the work which is being done at the University, due to its high standard and the willingness of the leaders to co-operate with the authorities wherever possible.

of these so-called "tooth-removers."

4. There is also an itinerating group made up of "tooth-cleaners" and "tooth-removers." They attend country fairs as a rule and their charge for teeth cleaning is very small. Their technique though crude is rapid and seemingly quite effective, for the teeth are clean and white after their treatment. The cleaning mixture is composed of an acid which dissolves the outer enamel surface leaving it, unfortunately, rough and ready to hold more easily than ever anything which will stain enamel, which usually is tobacco and food debris. The "tooth-remover" uses all the schemes of approach and suggestion that were characteristic of the mountebanks of all times and countries.

5. Another group whose members are

ordinarily housed in rooms with windows opening directly on the street and who display signs announcing them to be "tooth-fitters." They offer to restore, by full or partial denture, lost teeth; to cover with a cap of gold, brass or silver, more or less tooth-shaped, decayed teeth; or to cater to the human desire for adornment by capping perfectly good anterior teeth. Some attempt the stopping of tooth cavities with a cement, gutta-percha, or perhaps a locally made silver alloy. No attention is paid to proper cavity preparation. The equipment and drugs employed by these men are of the most meagre, and they never take into account the existence of a bacterial kingdom. To practice they require no formal education or licence. Self-instruction or apprenticeship in a "tooth-fitters" shop is all that is neces-



Typical river junk.

sary. This group is very numerous and as yet no survey has been made. It has been estimated, however, that throughout China they number at least five thousand.

6. In the larger and more up-to-date cities, which might be represented as a class by Chengtu, Nanking, Shanghai, Hankow, Peiping, Canton, there is to be found a group of men in practice who served as chair and laboratory assistants to Japanese, European and American dentists. These men offer a little better grade of practice than the last mentioned, but because their treatments are based on unreasoned observation they can do no more than produce mechanical results without the biological accommodations. They are at times dangerous to public welfare. They have a large clientele who believe that they receive something just as good for less money.

In a number of the Open Ports (cities open to foreign occupancy and business) there are to be found European, American and Japanese dentists. These men confine their practice largely to the well-to-do patients, either Chinese or their own nationals. They have done little or nothing for the advancement of dental practice in China, nor have they contributed to dental educational development. The same may be said of the group of Chinese foreign-trained dentists; except for one notable attempt made in Shanghai to conduct a three-year course

Dental College. This school existed for only three years. It was closed because of dissension and lack of funds. It graduated less than twenty men.

A few night schools or short-term courses have been or are being conducted by some of the last group for the benefit of the unqualified who wish to add a few more laboratory or operative techniques to their repertoire.

China owes its most valuable experiments in the development of dental practice and dental education to Christian Missions. That of the Peiping Methodist Hospital is one which conducted a three-year course in dentistry for a number of years. Other mission hospitals also have provided some dental training, and dental graduates of these projects, though few, are now giving service of a useful nature.

The most notable and successful of the mission contributions to Chinese dentistry has been that of the College of Medicine and Dentistry of the West China Union University, located at Chengtu, Szechwan. This college offers a university grade dental education and its graduates are finding ready employment all over China. Its course may be covered in seven years after high school graduation—two years pre-dental, four years didactic and laboratory with one final year of internship. The biological and medical sciences are taught in common to both medical and dental students in the same classrooms and laboratories and by the same staff. Every care is taken to relate dental and systemic disease and disorders in diagnosis and treatment. It is the hope of the college that its graduates shall be of great service in meeting the wide demand in China for practitioners and for leaders of dental education.

Until a very few years ago the Federal, the Provincial governments and organized Western-Chinese medicine paid little or

no attention to modern dental education or practice. There has been a variety of reasons for this neglect. To mention a few will be sufficient. The Provincial and Federal governments, busy organizing themselves or fighting among themselves, troubled little about the protection of the public from the ever-growing number of dental quacks; Chinese modern medicine, busily consolidating its own position, paid no attention to the need for a Chinese dental profession; the small numbers and widely separated locations of qualified dental practitioners prevented the organization of any dental group strong enough to attract public attention.

The public health program of the present National Government is today demanding a preventive dental service in the schools, and municipal-health clinics, of which an ever-increasing number is being organized.

The Peiping municipality, in conjunction with the Peiping Union Medical College and the Peiping National University, has engaged dentists in two of its health centres. The Nanking municipality has a dental service in one of its health centres and in one of its school-health clinics.

Many of the larger general hospitals have dental departments with qualified dentists in attendance—Peiping Union Medical College, the Peiping Methodist Hospital, the Changsha Hunan-Yale Hospital, Central Hospital in Nanking, the Central Hospital of Wuchang, the

Kwangsi Provincial Medical College Hospital, the Chungking United Church of Canada Mission Hospital, the Chengtu Dental Hospital and several others.

The Municipality of Greater Shanghai now requires an examination of those who expect to practice dentistry or who wish to qualify for recognition as dentists.

Preliminary national regulations for the registration and control of all dental practitioners in China have been formulated, and have been promulgated by the Ministry of the Interior.

In the fall of 1935 the National Government organized a Department of Dentistry in the National Central University at Nanking. At present the course is one of four years: two years of basic biological and medical subjects and two years of dental sciences and clinical practice. It is to be hoped that without too much delay, the number of years will be increased to permit of more adequate preparation of a high grade of dental practitioner.

Accumulating evidence shows a growing appreciation of the value of dental health in China, for on every side there is an increasing demand for a better type of dental service.

Dentistry should have and has every prospect of being included in the Government's Health Welfare Program, which from present indications will be based on State or Socialized Medicine, or some modification of them.

No person, in the cultivation of the virtue of thrift, should ever lose the power of spending money. Thrift is a means to an end, but if it is directed to the mere accumulation of wealth, that end is not wholly accomplished.

There are three primary necessities in life: a comfortable, sanitary home, good health, and good food. If we as a nation prefer merely to gather wealth and not to spend wisely on those three necessities, we deserve all the national ill-health and unhappiness which comes to us.—Lord Macgregor Mitchell.

Dentistry for Children*

by S. A. MacGREGOR, D.D.S., Toronto, Ont.

THE more I become interested in this subject, the more I feel that in the past we have thought of this phase of our work as that soil which, if cultivated, would yield very little in financial return. In our societies it has been somewhat forgotten; in our textbooks little is seen on the subject, and in our offices about all we can honestly say is that we have endeavoured to treat a patient during childhood with as little effort as possible yet striving to hold the child patient until he or she becomes an adult.

As I think of these facts I cannot help focussing my attention on that rich tract of land, not forty miles from Toronto. The celery beds just south of Bradford are the area to which I refer. They tell me that a Dutch farmer with 10 acres can earn for himself a very good living. How many prospectors in the past have journeyed over this, which they thought a worthless tract of land, in an effort to gain wealth from some hole in the ground in the north. Little did they realize as they crossed this swamp that there lay within their grasp something which, if cultivated, would earn for them a livelihood that would last into posterity. On the other hand this project in the north was one that might bring returns for a time but the future would be devoid of any hope.

Is this not so in dentistry? We, as dentists, feel that working for children is that worthless part of our field, and we are only too glad to pass over it, in an effort to gain quick returns from restorative procedures for adults. We fail

to realize in doing this, however, that when working for adults the needs are soon provided but the future holds for us little hope, whereas, on the other hand, working for children means a lifetime job, full of pleasure, satisfaction and remuneration equal to, or even greater than that received from any other branch of dentistry.

RESULT OF DEPRESSION

" 'Tis an ill wind that blows nobody good." This is a phrase that is as old as the hills, but to my mind it fits very well into the picture which I am going to discuss. In 1928 industry was at its greatest height, finance and commerce were at their peak, and everyone everywhere was enjoying to the fullest the fruits of a prosperous period. What a wonderful picture of happiness and how few of us even dreamed that this could ever change! After the 1929 crash, everyone knows a depression followed which changed the whole outline of this picture. Fortunately for the professional man he was probably among the last to feel the effects of this distressful period. During the prosperous years, dentists everywhere were busy, in fact so involved in restorative procedures that they failed to see where they had the time to work for children; however, as the wolf came closer and closer, we find these same dentists becoming less selective. Adult patients became fewer and fewer and the child was welcomed with open arms. As this transition took place, we find an effort on the part of the great majority

* Read at the Eastern Ontario Dental Society October 4, 1937.

in our profession to seek newer knowledge on this subject "Dentistry for Children." A proof of this trend of thought is provided by the experience of the Toronto Academy of Dentistry, which sent out a questionnaire, requesting subjects most desired for discussion; and to their surprise, they received replies indicating that dentistry for children ranked second. Undoubtedly this effort on the part of the profession, to improve its technique in caring for children, will eliminate many of what were once thought to be hazards, and eventually dentists will find that they have as much time for children as for adults.

As a result of this depression, then, we find that many have learned to like caring for children, practices have been rebuilt and offices have been given a new light of inspiration by the smile from the young and innocent.

Besides this selfish aspect, we find also that our subject has another important angle, in so far as the dentist himself is concerned. When one studies any branch of medical science, as in other walks of life, there is the natural desire to gain from one's efforts a livelihood that cares for one's self and dependents. However, one must not lose sight of the fact that the profession and the public expect far more from us than that. Indeed, we are looked upon as a group of men and women highly trained and ready at all times to look on our work from a humanitarian viewpoint. When, then, can a dentist be more human than when caring for those who are too young to realize their needs?

INSTRUCTION TO PARENTS

When we speak of the child's innocence as to his needs in dentistry one cannot help wondering just how many parents realize what a healthy and normal mouth means to their child. Moreover we, as dentists, must be awake to

the fact that it is our duty to bring this message of health to every father and mother with whom we come in contact. When the child is brought for examination, the dentist, before discussing dental health with the parent, must of necessity be thoroughly convinced himself, that the lesson he is about to teach is one of vital importance. Then when the dentist has satisfied himself that dentistry for children is essential to health, he should make an examination of the child. As this is being done, the parent should be informed as to what we expect to find in a normal mouth. One should instruct the parent as to why these precious deciduous teeth should be saved. In discussing this question one should state the time that these deciduous teeth should be lost. I always try to draw for the parents a mental picture, by telling them that should this child live to be sixty years of age, the deciduous molars will have acted as the main masticating apparatus for one-fifth of the span of his life. If, however, the parents appear negligent and the child is about to lose the deciduous teeth six years or more before normal, then I would approach in this manner: "How would you, yourself, enjoy being without teeth, for a similar period in middle life?" Surely any parent with average intelligence would see your point.

After having enlarged to some extent on the necessity of deciduous teeth for proper mastication, I would bring up the question of infection in a similar manner. I think it is wise wherever possible to ask the parents to picture themselves in the place of the child, particularly where aches and pains of an infected tooth are involved. One should clearly emphasize how an infected tooth may mean an infected blood stream, loss of appetite, loss of sleep, and a general run down condition which undoubtedly incapacitates the child for school work.

More and more we should emphasize this point, for how often do we see tonsils and adenoids removed, but the mouth left in a condition of filth by the presence of putrescent teeth. How often do mothers seem surprised when you tell them that only half the job is done. They don't seem to realize that infected teeth will do the same injury to their child. One should always emphasize the importance of normal occlusion. Explain what it means and how any deviation from normal occlusion may also mean a general run down condition and slow progress at school, on the part of the child. If deciduous teeth are lost too early, always instruct the parent, as to what will be the result, and just how it can be avoided. If one sees evidence of lack of care of the mouth in general, bring it to the attention of the parents. Show them what it means both in health and dollars. I always instruct the parent as to the proper brushing of the teeth and the use of floss. It has been my observation that the most susceptible area to caries in deciduous teeth exists between the first and second deciduous molars. The parent, then, is instructed to use floss to clean this proximal surface and that of cuspid and first molar, at least once a day. It is my belief that food impactions in this area are similar to those between the second and third molars in second teeth, in that they both lack contact force. It would seem reasonable then, that if this particular proximal space in deciduous teeth were kept clean until the six year molar comes into place, there would be less possibility of food impactions and hence less susceptibility to decay.

DIET

The dentist should feel free to discuss the subject of diet with the parent. In discussing this phase of care, one should inquire of the parent as to how far the physician has gone in prescribing a diet.

If, however, you feel that the teeth show some deficiency, then you should also feel free, regardless of his prescription, to discuss this condition with the physician. I think that in this particular phase of our work, it is essential that we co-operate with the physician—inasmuch as diet has so much to do with the health of other parts of the body. Having convinced the parents as to the necessity of the care of the deciduous dentition, it is wise to have them realize on whom this grave responsibility lies. When I have examined the mouth of the child, I always make clear to the parent all the abnormalities I have discovered. When I have done this I never fail to say, "Now the responsibility of this rests upon your shoulders, not on mine, do as you see fit."

Everything pertaining to the financial outlay for the reconstruction of the child's mouth should be discussed with the parent, before any work is commenced.

HANDLING THE CHILD

Now we come to that part of the paper around which our subject really centres, the child. To be successful in handling children, one must of necessity be tolerant of childish activity and curiosity. Moreover one must have a thorough understanding of their reaction to changes in environment. Our first consideration, then, in child psychology may be a study in what we should expect of a child at different stages of life. If we have a general idea as to what to expect, we undoubtedly will be better fitted to help him satisfy those natural desires and urges, which are clamouring for an outlet. However, if we make no attempt to study his natural impulses, we in all probability will be expecting him to do the thing that he is not ready for, and has no desire to do. One can clearly understand, then, where on the one hand, you would have willingness of the child

to co-operate, and on the other a negative attitude which would be very hard to break down.

It is a recognized procedure that, before one can prescribe a treatment for some bodily ailment, one first must make a proper diagnosis. Is this not also true with the treatment of a child psychologically? It, too, should be a recognized fact that, before attempting to manage a child, one should be able to make proper psychological diagnosis. In a somewhat general way, then, let us attempt to classify children, as to what we may expect of them at different ages or groups. In making this classification, however, we must realize that the reactions of a child are determined by the situation in which we see it. In other words we must not be too critical and expect a father or mother to see a child as we might classify him, for they are seeing him in an entirely different environment. Even a Sunday school teacher may not be able to see him as we do, for how different are the surroundings of a Sunday school room from those of a dental office. The group ages which I would pick as a basis in this classification would be:

1. Infancy up to $2\frac{1}{2}$ years.
2. $2\frac{1}{2}$ years to 5 years.
3. 5 years to 9 years.
4. 10 years and older.

(1) Infancy to $2\frac{1}{2}$ years.

Babies need constant physical activity. They grow, learn and probably experience what we might call muscular enjoyment, by always being on the go. Does it not seem unreasonable then to expect a child of this age to be quiet, except through the introduction of some quiet activity which it finds, or we provide.

(2) $2\frac{1}{2}$ years to 5 years.

Some children of this age we find passing from the active infancy stage to a more quiet placid stage. Children of this type are very easily managed. When we find them entering the waiting-room,

they usually appear very quiet, shy, and very affectionate with their parent or guardian. One must, with children of this type, take plenty of time to get acquainted. Let anything you do either in the way of psychological or operative treatment be very gradual. Finally the children will get to know you. They will crawl out of their shell and very soon you will have a great many questions to answer. The operator must be tolerant of such and realize that whereas the children of infancy stage learned by activity, these children learn by questioning.

(3) 5 years to 9 years.

Very often this same group of children, which we have just discussed, go through a decided change when they reach five years and older. At five years and older we find children more easily influenced by other age groups. In other words, the child starts to school and hears from other children the worries and terrors of a dental operation. We cannot expect all children to listen to this, and be the same quiet type that they were at three or four years of age. The child, who is affected by such an influence, often becomes very difficult to manage in the dental office at this age. It is hard for most of us to expect this, particularly when they responded so well to treatment when younger. One can readily see where the dentist is liable to become impatient, with failure the result. However the dentist should check this perturbed feeling and in appreciation of the child's good behaviour for the first two or three years make an attempt to understand. Very often these children become boisterous. They again become active, and become more inquisitive, but in a more boisterous way. They will have a desire to rummage and handle everything in the office. How well I can understand your feelings and what a strong desire you have to say, "don't," to this and "don't," to that. This, however, would be fatal, as the

child would feel unkindly toward you and a fear would be set up by this reaction. Again we must find some quiet activity if we ever expect co-operation. Find out in what he is interested. Bring conundrums, tricks, etc., into the picture. Give him a "Mickey Mouse" or "Tom Mix" book to read. In time he will become so acquainted with this new environment that there will be no new drawers to open up. When this has happened he will then be ready to listen to you and you can in all probability convince him that your opinion of dental treatment is different from that of his young friends.

(4) 9 years and up.

It hardly seems reasonable, but we do however find these same children passing from that difficult stage into a quieter and more co-operative period. At this age we find that they learn by reasoning and hence they are not so likely to be affected by other age groups. At this age children are able to think for themselves and in talking to them we must realize this. They are usually easy to manage, more particularly if an effort is made to explain what is being done.

Although we find some children in these different age groups reacting in the way just described, there are others who are entirely different. For instance we might find some children of two and a half to five years quite boisterous. As they pass into the next age group they might become quiet, between five and nine years. This picture would then be quite the alternative of the groups just described. One would just have to altercate his ideas on what to expect for that age group and treat them accordingly. These children however, I think, are in the minority, and I think it is all for the better so far as dental treatment is concerned. This classification into age groups with what to expect of each group undoubtedly helps one in treatment.

There is another classification which one can make and it is of great assistance in forming a plan of treatment. I speak now of classification according to type, namely:

(1) Regular guy or tom-boy girl.

(2) Affectionate and quiet type.

(3) Negative (a) Smart alex.

(b) Highly nervous.

(1) The regular guy can be readily detected. He usually wears a popular garment of the day and season-long boots, rugby cap, buttons and badges adorn his clothing. After his first visit, he expresses a desire to come alone. With this type I try to give him an opportunity to show me he is a regular guy. Tease him about his girl friend. Run down his rugby team and school, etc. This lad is very easily managed and is a pleasure to work with. The tom-boy girl is very similar and is treated in a somewhat similar manner.

(2) The next type are affectionate and quiet. They are usually easily managed providing of course that time in all procedures is your first consideration. Do not attempt to bring children of this type into the operating-room without the parent. Be affectionate with them—they look for it. Show them every procedure, and when your acquaintance is made you will have an easy patient to work for.

(3) The third type is one which has to some extent been the cause of so many disliking to work for children. I speak now of the "negative" or antagonistic type of child. Under this type you have two classes of children. (a) Smart alex. (b) Highly nervous. The smart alex type is probably not as hard to manage as the highly nervous type. This child loves to be the centre of attraction. To gain his desired seat of honour, he feels he must be boisterous in his mannerisms. Loud speaking is one of his characteristics. He just loves to talk when others are talking. He usually bullies other children, and

tries to impress everyone with how brave he is in the dental chair. However, when the time comes for a dental operation to proceed, his attitude changes, and usually you don't get very far. With this type of patient I always bring other children into the picture and more particularly his chums. This generally is quite convenient for I find that the smart alex likes to be surrounded with those he considers weaker individuals. He feels in their presence he can be the big fellow. When he refuses to have work done on the first appointment I usually see to it that someone with whom he plays is in the office the next time he comes. On his next appointment if his chums are along I always make a fuss over them, absolutely ignoring him. Have them steal the show. Do a fake operation, if necessary, on one of them; in an attempt to win back his crown, he will usually come around. The procedure will likely be slow but it will be a much happier one. This type of child is often jealous-minded and if you ever hope to succeed you must play on that characteristic. With this type, the parent is usually instructed to stay out of the picture—at home if possible.

The highly nervous type is not like the smart alex type in as much as they are of a quieter nature. And, too, unlike the smart alex they have fewer children around them. As a rule they will only have one or two pals. This type of youngster is usually the one who, when placed in the chair, will attempt to push you away from him. When dealing with the smart alex we often hear a mixture of cries and chatter, while in dealing with the highly nervous child all we hear is a whining sort of cry, and no matter what you say you will never get a reply. The mouth will be closed tight and the hands will be used freely. Again bring the chum into the picture, however in a little different way. I would not ignore this child, as in the case of a smart

alex. This child is not attempting to be a leader. He is probably resisting treatment because of fear as a result of some previous operation, hence it is wise to use more of a pleading program. However at the same time I use the chum as a model upon which to prove that dental treatment is not so bad after all. In most cases after a couple of such appointments I can start to work. Each operation must be short, and explanations must be long. In dealing with such a child one must remember that he may be suffering from a systemic disorder that is definitely undermining the nervous system. If such treatment does not prove satisfactory, I then advise a medical examination. If the medical diagnosis reveals some systemic disturbance I postpone any further operations until the child is more physically fit. In both these cases where the child fails to co-operate, I have explained a treatment where you may have to see the child several times. Let me repeat it is a long way around, but the happiest way to a successful goal and also one that will sing your praises in the neighbourhood. However when I feel that these methods have failed, I then attempt to manage the child through another channel. The mother is requested to leave the room, with the assurance that the child will not be held. When the mother is out of the picture, I sometimes appeal to the child on the ground that if we do at least a prophylaxis we will surprise the mother. When this approach is of no avail, I then attempt to discipline the youngster through a few harsh words and a stare that means business. I might say that I have used all these systems over my period of six years' practise and I have only held one child. This child was a case where the parents had to come a long way and they did not wish to co-operate and use my system. The child would have lost her four six-year molars if the work had not been done. How-

ever in this case, I repeat, because the parent would not co-operate, I had no alternative. I was glad nevertheless to have had this experience for it taught me one thing, never to believe the clinician who boasts that when a child is held once that it responds beautifully to treatment the next time. In this case each appointment was worse. This case served as an experiment and it taught me a very valuable lesson, namely that little can be gained in holding a child.

ENVIRONMENT

Let us turn our attention now to another phase of the treatment of the child psychologically. That to which I refer is the environment in which you expect to meet the child. Ask yourself if your office is one you particularly would have liked to visit when you were a child. The waiting-room should have reading matter for children. If you wish to have a small table and chair upon which to display reading matter, then all the better. Have you ever thought how you would like to wait in a dental office without anything to take up your attention? I strongly disagree with the idea of a separate playroom in a dental office. How difficult it must be to take that child from a paradise of toys to something so removed as a dental chair. I wonder if we were to set up a dental chair in the midst of an exhibition midway how many patients we would ever get to the chair. To my mind the more toys and "Mickey Mouse" wallpaper, etc., that we have around, the more the dentist is placed in the background. The dentist must be the central object. I am a strong believer of clubs in the dental office. Let me explain the system we use. We have a birthday club and an "I can take it" club, that we use in conjunction with one another. On the first day I tell the children the why's and wherefore's concerning the "I can take it" club. I show

them the pin with the picture of a happy boy or girl on it. I explain that if they win the pin the first day they wear it to the office until the work is finished. As they present themselves on each appointment the pin is removed, placed on the tray and they must win it back again. On leaving the operating-room after the first appointment the nurse shows them our birthday club book. They are instructed to bring along a picture of themselves next day and it is placed in the birthday book, together with certain information about each one. They are told that should they lose their pin the picture is not put in the book. The mother is usually instructed to see that dad makes quite a fuss over the pin. This to my mind gives the children an interest in your office. Like the theatres and their serials, you put something before them that makes them want to come back. Birthday cards and Christmas cards are always sent to the child patients.

I always meet the child in the waiting-room, for in so doing I eliminate such possible objects of fear as the engine and x-ray machine, etc. I never allow the nurse to remain in the room with me. If the nurse is darting in and out, you will not have the best attention from the child. The parents are allowed in the operating-room unless I see that they interfere with my usual progress.

DIAGNOSIS

Besides being able to treat the child in accordance with sound psychological practice we must also prepare ourselves so as to be able to take the best possible care of the child's mouth. The most important factor in the care of the child's mouth is a proper diagnosis. To make a correct diagnosis it is necessary that we have a chart upon which we mark our findings and from these we will be able to draw our conclusions. A proper examination should be carried out through the

aid of a mouth mirror, explorer and a radiographic record. The occlusion is always checked first and discussed with the parent. Education of the parent as an examination is made has a strong psychological effect. The parent develops confidence in you, and when the fee is quoted he is more liable to feel it is justified. If you just look for holes in the teeth, then you are neither doing justice to the child, parent nor yourself. Don't be just a hole filler.

Moreover do not peddle dentistry. There is nothing so degrading to my mind as to go into an office and see openly displayed old extracted teeth showing good and bad restorations. If you, in a sincere and ethical way, educate the parent, he will have sufficient confidence to expect proper technical skill from you. How unsightly it would be for a surgeon to display a lot of old gall bladders, etc. When we peddle dentistry we lower the profession.

OPERATIVE PROCEDURE

Let us now turn our attention to operative procedure for two types of cavities, MO and DO in a molar, and distal cavities in a cuspid. For an MO in a molar with a $33\frac{1}{2}$ or 35 inverted cone bur I cut through the enamel in the mesial pit. This accomplished I go in with a 37 inverted cone bur and cut towards the marginal ridge under which lies decay. Never start in the decay, for immediately pain is created, and trouble begins. I cut my dove tail with the inverted cone cutting from within out. The dove tail is cut to the depth of the 37 inverted cone. The width of the neck of the dove tail bucco-lingually is usually $2\frac{1}{2}$ to 3 mm. wide, depending of course on the size of the tooth. I finish outlining the cavity with a 702 or 559 cross cut fissure bur. This procedure is followed with removal of decay by a No. 5 round bur and spoon excavator. I then smooth the

walls with a 44 tapering pencil stone. The retention is then secured through the use of a 35 inverted cone bur. (Fig. I and II). The cavity is then phenolized. As in secondary teeth if a lining is indicated I use Carbo-Euginol and cement or cement alone.

I use silver amalgam throughout. I have yet to see where cement and gutta-percha are indicated as permanent fillings for deciduous teeth. Inlays are too expensive and not necessary. Stainless steel matrix (Fig. III) is bought in strips and from this we cut our matrices, which are never festooned. If they are festooned

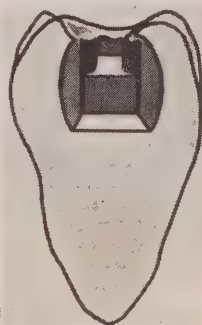


Figure 1.

Shows mesial view of a completed MO preparation in a molar



Figure 2.

Shows occlusal view of completed MO preparation in a molar. The width of the neck of the dovetail as illustrated varies from $2\frac{1}{2}$ to 3 mm.

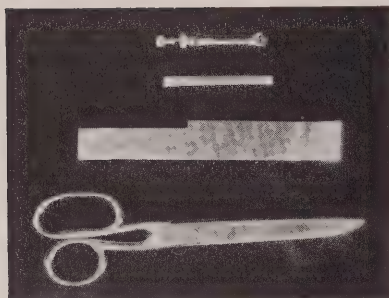


Figure 3.

Shows Ivory matrix retainer No. 8—strip of matrix banding gauge 36, 3 mm. wide and scissors.



Figure 4.

Shows the applying of the matrix and the position of the fingers both in holding and tightening it.

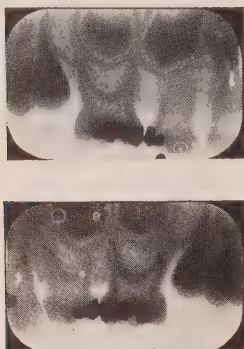


Figure 5.

Shows 2 cases where compound fillings were inserted using the matrix in the manner just described.

they will slip off deciduous teeth. I use No. 8 ivory matrix retainer and it is held in position in the following manner (Fig. IV): With the second finger of the left hand push the matrix over the tooth until the finger rests on the occlusal surface of the tooth. In so doing you force the band up under the free margin of the gum, enabling it to grasp that part of the tooth where tapering has not commenced. Then with the index finger and the thumb on the left hand hold the retainer steady and tighten with the thumb and index finger on the right hand. In this way you hold the instrument steady and it is not so liable to hurt the child. When the matrix is tightened as tight as possible the amalgam is then inserted in the usual manner (Fig. V), always being sure to start the filling with a sloppy mix. As the cavity is gradually filled a drier mix is used.

In the preparation of the distal cavity in the cuspid, I use the same instrumentation (Fig. VI). The holding of the matrix and insertion of the filling material is exactly the same procedure (Fig. VII). When all operative work is finished I polish the fillings with sand-paper disks, stones and rubber cups with pumice.



Figure 6.

Shows completed preparation for distal cavity in the cuspid.

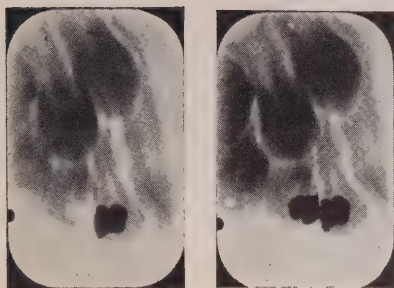


Figure 7.

Shows x-ray of a filling in a cuspid and another where an MO was inserted in the molar approximating the filling in the cuspid.

I never extract for children under eight or nine years of age. The child is sent to a specialist where the teeth are extracted under gas. This procedure is advisable in as much as the child is liable to resist such treatment and not feel very kindly towards the operator. Extractions are usually left until all operative work has been completed. Then the child is asked to return in a few days after it has been to the specialist and a prophylaxis is given. This system is followed so that I am able to reassure the child that my treatment is not unpleasant, and that is the thought I want him to remember.

In so far as root canal therapy for deciduous teeth is concerned, I must say that until more scientific research is carried out on the subject, I will continue to extract teeth with infected pulps. However when I extract deciduous teeth, I usually advise the insertion of some form of space maintainer. I would suggest reading an article in the May issue of the "American Journal" entitled "Infection of the Deciduous Molar," by C. H. Morningstar, D.Sc., Ph.D., Detroit. In this article he shows some interesting facts concerning the effect of the infected deciduous tooth on the secondary tooth germ. Mothers have told me that their dentist advised saving the old infected

roots as space maintainers. If roots hold the space, then why do we worry so much about contact points.

EDUCATION OF THE CHILD

The education of the child should always be left until the last, and for very young children I advise the use of coloured models or pictures. An effort should be made on the part of the operator to educate the child in story form. Tell him why he should eat vegetables. Explain brushing and general oral health habits. For very young children the brushing should be made a game. I use brushing cards with score pads, and when the score pad is filled it is returned to the office and the reward is usually a tube of tooth-paste or a new "Pop-Eye" tooth brush.

If one follows the methods which I have just described in this paper I am certain that he will find working for children a great pleasure. It might be fitting at this point to enumerate some of the reasons why I personally enjoy working for children. From a purely personal standpoint I naturally love children. How different it is to look into the clean healthy mouth of a child as compared to looking into that of the average adult. Let me make a comparison. If I were to take any one of you to the nearest car sales room, and ask the manager to put side by side a 1937 and a 1914 model car and then give you your choice of putting them in good condition, you undoubtedly would choose the 1937 car. This of course would be your choice because of the enjoyment you would experience in maintaining the good condition already evident. In contrast, should you choose the 1914 model what a task you would have to restore it to a condition of fitness, and what a poor outlook there is for the future. Is this not so when we compare the mouth of a child of three or four years to that of a patient in adult life?

The vast majority of children, if handled properly, will be boosters, not knockers. Never do we get children fussing to the extent that we do denture patients. Let me tell you of an experience which I had in my office within the past week. This patient, a man of about fifty, was having constructed a full upper and lower denture. It happened that he and his wife were of about the same age and had both just been married for the first time. On each appointment, as the wife accompanied him to the operating room, the "lovey-dovey" atmosphere became more apparent. When the try-in appointment was completed she pushed her husband out of the office and looking me straight in the eye exclaimed, "Remember, if you take the dimples out of my husband you won't get one cent for the teeth!" Never have I been asked to preserve the dimples in a child.

Before concluding my paper, I want to leave with you one very important point and that is, that the child is our best practice builder. Let me cite something I heard over the Lux Hour last

year. Mr. Cecil B. DeMille was interviewing Dr. Giannini, one of America's wealthiest bankers. Mr. DeMille asked Dr. Giannini why he happened to loan more money to motion picture concerns than any other business. Dr. Giannini's reply was "Because any business that appealed to children couldn't help but flourish." He elucidated still further by explaining how he and Mrs. Giannini had a private theatre in their home. In the little show house the pictures of different firms were shown to children and the company whose picture received the most applause from the young audience was the one which he backed financially. If this is true in the financial world, surely it can be applied to practice building in dentistry.

Let me repeat again, the child is our best practice builder. It is a pleasure to work for him, and, although you may think the financial return is small, you will be repaid one hundred fold, as in the words of Longfellow,

*"That which the fountain sends forth
returns again to the fountain."*

Conventions

SASKATCHEWAN DENTAL ASSOCIATION, IN REGINA, EARLY IN JUNE.

CANADIAN DENTAL ASSOCIATION, (DELEGATES' MEETING), VANCOUVER,
JUNE 30-JULY 2.

PACIFIC COAST DENTAL CONFERENCE, VANCOUVER, JULY 4-8.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.

K. C. CAMPBELL, SECRETARY, 88 PORTLAND PLACE, LONDON W.1. ENGLAND.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

Notice

The practising dentists of French descent or those having any relation with the French-Canadian population of the Province of Quebec are requested to send their names and addresses to the Association des Dentists de Langue française de l'Amerique du Nord."

EPHREM VINET,

362 St. Joseph Blvd. East, Montreal, P.Q.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "editorial office, 314 Somerset Building, Winnipeg.

A Housewife Looks at Your Office Entrance and Reception Room

I OPENED the door to my dentist's reception room a few weeks back only to experience that delightful feeling I get in the springtime when my housecleaning is finally an accomplished task.

"What's happened here?" I gasped and the solicitous dental assistant hastened to explain that Dr. X had redecorated and refurnished his entire suite of rooms.

What a reformation! Light coloured walls replaced dark ones; new carpeting, hand blocked linen drapes and new furniture had been installed by an expert interior decorator to create a room of early American design. Whereas on former occasions I had been unable to read in this room, because of the poor lighting facilities, an abundance of light now pervaded the whole room.

Such a cheery, comfortable room it was, and so different from the former arrangement. It set me to thinking about reception rooms, those of dentists in particular, and to satisfy my curiosity I began to visit them—one here, one there.

These visits have somewhat disillusioned me and caused me to wonder whether dentists, professional men as they are, realize the psychological value of a well-appointed reception room. Important first impressions made by a reception room influence a patient and create either confidence or doubt.

I am an average woman with average

taste and desires. My reactions to a dentist's business domicile are little different from those of hundreds of other women—the dentist's prospective patients—and here are some of the findings and reactions.

A PRACTICE BUILDER

I like Dr. A's office because:

First, Dr. A. rented space in a substantial, well-kept corner building. The street entrance to his second-storey suite of rooms is easily located. It is in good repair, with a sturdy, non-sagging screen door and an entrance sign which is bright and readable. In other words, this first impression of Dr. A's office is a post-depression one.

His reception room further establishes my confidence in him. From the soft-shaded, deep-pile carpeting which covers the entire floor, to the pictures on the walls, this room breathes an atmosphere of quiet elegance. Cream coloured walls, indirect wall lighting, sparkingly clean windows, well-hung drapes form a background for the modern furnishings. As I wait for Dr. A, I am impressed with the cleanliness and order of his establishment and with his sense of good taste.

A very special cheer I give for Dr. A, too, because I note that he caters to children. A little table and four wee chairs, as well as books and magazines

are provided for the youngsters. (mine will no doubt be among them), even two of the wall pictures are of nursery scenes. An operating room for their exclusive use has walls decorated with scenes in which they delight.

Dr. A's foresight in providing for these grown-ups of 1950 strikes a responsive chord in me. How often have I, with other members of my acquaintance, deplored the fact that so many dentists were reluctant to work on the teeth of our little Roberts and Marys. Some of them even belittle the importance of caring for baby teeth. Of course, I can't criticize too harshly the dentist who hesitates to tackle these wiggling little eels, but my admiration is aroused for the dentist who actually courts their business. No doubt next week at a luncheon party I'll tell the young mothers about Dr. A.

A PRACTICE DESTROYER

And now as to Dr. B and his office. Dr. B was recommended to me by a friend. "He's excellent," she asserted without blinking an eye, but I think her informant was probably Mrs. B.



To reach Dr. B's office I ascended a steep, rickety stairway, walked down a long narrow hall to the left, turned a corner, went down another

strip of dark hallway to a door marked, "Reception Room," and there I was. No indicators or signs marked the way and I must confess I did experience a "wonder-where-we-go-next" feeling when I came to the top of the stairway, but some kind-hearted resident in the building served as my guide to Dr. B's retreat.

The reception room which Dr. B main-

tains for the comfort and convenience of his patients is a deplorable one. I picked the most comfortable looking of the rocking chairs—there were four of them—and sat down only to discover that it was of that variety which suddenly tips the occupant back to a partial lying-down position. Since I was in no mood for any such acrobatic stunt, I chose for my next resting place a sanitary cot. Dingy grey walls, sleazy curtains and spotted window panes, a library table littered with various fraternal publications, a dull dirty rug and an unvarnished floor—these were some of the revelations of Dr. B's interior decoration scheme. My housewifely eye pictured the miracle which some varnish, paint, wallpaper, soapsuds and new furniture could accomplish in this room, but since I was not there on a cleaning project, I departed, thankful once again to return to the fresh air and sunshine. Dr. B's excellent reputation and unsightly surroundings hastily became things of the past for me.

HOSPITAL CLEANLINESS

"Extreme," you say? Not at all. Dr. C's office, where I ventured in that same day, proved to be a twin sister to that of Dr. B. A garishly painted entrance door—a combination of red, black and blue—was impression No. 1. Impression No. 2 was a stairway strewn with "dust kittens" and cigarette butts. Impression No. 3 was a shabby reception room, poorly furnished. One wall was decorated with a chart depicting the human molars; another with a long electric light cord which seemed to come out of a hole on one side of the



wall and unobtrusively disappear on the other side.

I am a housewife. I chase dirt day after day and my eye is well-trained to detect any shoddy cleaning practices. I cannot condone dirt in a dentist's office. How do I know that instruments which will be placed in my mouth are sterile when I climb a dusty stairway, sit down in a dull, greasy looking chair, look through dirty windows? The dental profession is closely allied to the medical and my ideal for a dentist's office would be a miniature hospital, so to speak. Perhaps the building management is responsible for dirty windows, walls and stairways. If so, cost of rent should assure cleanliness. Dirt is inexcusable in the office of a man who tells me, "You're not doing a very good cleaning job on those teeth of yours."

I not only like a clean reception room, but I like one which is well furnished, the depression notwithstanding.

With a compassionate thought for the young dentist who finds his wallet thin and his patients loathe to pay their bills, I still maintain that it's possible to buy a few good pieces of furniture. "Period furniture" of 1920 gives the impression that the dentist "isn't doing so well" and something must be wrong. And here's an item of interest: patients are not intimate enough acquaintances, in most instances, that they enjoy crowding together on a davenport. I prefer a chair of my own if there's one available.

MACROSCOPIC EVIDENCE

Well, my travels in and out of reception rooms have about come to an end. However, there are a few details which clamour for airing.

I approached the office of one of the foremost dentists in the state by way of a long steep stairway—one of those "puff up" and "slide down" affairs—and how I dislike them. This same dentist, whose

equipment is ultra-modern, had out in plain view some old shoe boxes crammed full of odds and ends—evidently his obsolete material is being saved for a rainy day.

Dentists, I have discovered, may have sterile equipment, crisp, clean curtains, sparkling windows, spotless floors, but will tolerate a stairway with dusty corners—another "first impression." I noted that the cleanest stairways had some little round brass corner gadgets—landlords, please note.

Wall decorations in some of these reception rooms were most revealing. Stuffed owls, a picture of the dentist in football uniform and perhaps a family portrait or two were no doubt dear mementos of by-gone days and of interest to the owner, but hardly to the patient. An etching or a copy of some well-known painting could replace these to good advantage.

Another detail of importance is the reading material provided by these dentists. If I have to wait for my dentist, I like to pick up a *current* copy of a popular magazine or the morning paper and glance through it. Health magazines, too, are interesting to me. Lodge or fraternal publications, western thrillers and confession stories may have their place; but good taste eliminates them from the dentist's reception room, I'm sure.

And, by the way, when I read, I need light. Dark, gloomy rooms depress my spirits, and besides, it's so unnecessary to have inadequate light in this day and age when power companies provide free service to determine the amount of light needed.

YOUR BID

The "shingles" hung out by these dentists to announce their profession were also of interest. Strange how awry some of them are; how faded looking.



Some day the last bolt will loosen and

On one of them rain and sun had no doubt combined to peel off the once beautiful gold paint and now the name is barely discernible. A dentist with a really attractive office has an entrance sign which swings on its loose bolts like the sword of Damocles.

some hapless pedestrian will probably be wearing the sign around his neck.

Yes, I'm only an average woman—no abnormal critic or seasoned "old crab." The other members of my sex may not tell you these things, but they'll tell their friends and by the grapevine route your reputation will spread, not because you can't operate a drill to best advantage, but because your reception room and entrance haven't "filled the bill." —
Reprinted by courtesy of North-West Dentistry.

The Art of Telephoning for Dentist and Assistant

THE method of telephoning is most important — the first voice of the office speaking to the prospective patient; therefore the one telephoning should be welcomed as pleasantly as if speaking face to face. If your voice shows a friendly interest you have made a friend for the office. If you are indifferent or flippant you may drive a patient away.

The following principles should be lived up to:—Politeness aids in building up a practice and hinders no one. Such words as "yes sir", "Thank you" and "please" do not indicate servility; they are a proof of good breeding.

Never say "hello".

Brusqueness has no place in the dental office.

Politeness does not waste time; it saves time and sweetens temper.

Clear enunciation is more precious than rubies.

The patient you are courteous to today, may refer many patients to the office next year. We can't play favourites or have part-time politeness. Our courtesy must be genuine. Sham politeness is worse than none.

Applied from excerpt taken from "Courtesy is My Business," by Joan E. Wing in the Nation's Business, November, 1937.

The "dollar down, dollar a week" type of retail buying is setting new records. A survey of "prosperity goods" buying (furs, luggage, jewelry, household furniture, etc.) by a midwest insurance company shows time sales were 6.7 per cent. of total department store trade in 1929, hit the depression low of 5.95 per cent. in 1932, rebounded to a new high record of 9.3 per cent. in 1936 and are currently running close to 12 per cent. of total department store volume. — (A.D.A. Press Release Service.)

"The widespread neglect of dental service has convinced many of the leaders in the dental profession that hope for the future of preventive dentistry lies in the development of more adequate service for children."—Arthur J. Altmeyer, Chairman, Social Security Board, U.S.A.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM MANITOBA:

A patient of mine left a denture in my office one afternoon recently to be repaired. That night thieves entered the office and stole the denture. I would like to know what is the right thing to do. Should I make a new denture without cost to the patient? Would I be justified in charging him the actual cost of production or am I under any real obligation to do anything in the matter, under the circumstances? The denture had been worn for six months in this case and had been made in a distant city. Would the case be altered had the patient worn the denture for six years instead of six months?—Dr. X, Winnipeg.

The problem was forwarded to a larger number of men than usual, as concise answers were expected, and it was the intention to group these replies in publishing the findings. However, these different opinions have proven to be so interesting that it has been decided to publish them in full.—Editor.

REPLY FROM NOVA SCOTIA:

The problem confronting Dr. X, in the matter of the stolen denture, may be looked at from two different angles—the legal, and the moral. I believe his responsibility in law would be determined by his care of the denture after it was committed to his charge. If he or his assistant, for instance, left his door unlocked or his window unfastened, thus

making it easier for the burglar to gain entrance, then I believe he could be held legally responsible not only for the loss of the denture but damages also, resulting from the deprivation of the denture for a longer period of time than the repairing of it would require. In such a case I think he would be well-advised to make a new denture with all dispatch, and not concern himself too closely as to whether the denture was six months or six years old. If he observed ordinary care in the protection of the denture from burglars, he may still have a moral responsibility to his patient, and I believe he has such obligation. If the denture were stolen from my office, I would cheerfully supply a new one in its stead on the ground that there would be a negligible loss in time and materials as compared with the gain of preserving the very valuable good-will of the patient. In my opinion it would be preferable to act generously in the circumstances and thus avoid any adverse criticism the patient might otherwise make among friends. I would make no charge for materials, nor consider the age of the denture.—A. W. Faulkner, Halifax.

REPLY FROM NOVA SCOTIA:

When this patient left your office there existed at least an implied contract; and, as an ethical dentist, you should be ready to provide an equally satisfactory substitute as the properly repaired denture

would have been, and charging but your usual fee for such a repair. All the ifs in the query do not minimize your assumed obligation.

Certainly you should make full explanation to the patient; and, as "most men are honest," he will in all probability voluntarily agree to a satisfactory compromise. Now is your chance to supply, if possible, a denture just a little better than the old, and for a fee perceptibly below the regular. Read Chapter III of Dale Carnegie's "How to Win Friends and Influence People."

Insurance covering losses from breaking and entering, burglary, etc., is very reasonable.—C. S., *MacArthur, Truro.*

REPLY FROM NEW BRUNSWICK:

Regarding the problem submitted by Dr. X of Winnipeg, I think he feels as I do that the only thing to do is furnish a new denture, though it comes as a severe financial shock without insurance indemnity. The matter of substitution rests between him and the patient.—*James M. Magee, Saint John.*

REPLY FROM QUEBEC:

In my opinion the denture should be replaced by the dentist without cost to the patient. The age of the denture would have no bearing on the case.—*Ernest Charron, Montreal.*

REPLY FROM QUEBEC:

It would appear to me that a satisfactory solution of the above question might resolve itself into an estimate of the outlay, both financial and otherwise, on the dentist's part, of what he considers himself *morally* called on to *voluntarily* contribute towards a replacement, under circumstances where he has taken every reasonable precaution, without

avail, to protect his patient's property. In the case under discussion, the denture was given to him for repairs and, apparently, due to circumstances over which he had no control, owing to thieves having broken into his office, it became impossible for him to return what was originally entrusted to him.

Due to the above, I feel that any action taken against the dentist, to force him to replace the denture, without cost, must fail as long as he is in a position to satisfy the Court that he had not been careless with the plaintiff's property and that he had used the usually accepted means of preventing such a loss. In this case I feel that he would be well advised in disclaiming any legal responsibility in the matter.

On the other hand there is no doubt an element of *moral obligation* on the dentist's part to see that his patient does not suffer any undue financial loss in this instance, if he can avoid it. If only for his own peace of mind he ought to go out of his way to safeguard valuables accepted by him for repairs. It has been our experience generally that lost or stolen articles take on a very decided increase in value when a claim is made for them by the loser. In like manner most patients place an extremely high sentimental value on a denture which has given them years of service, good or otherwise, beyond the time that we, as dentists, realize that it should have been replaced. It is frequently difficult to convince such patients that so far as their comfort and health are concerned a loss, under similar circumstances to the above, might actually be a blessing in disguise.

The query as to the possible justification for a variation in any financial adjustment in replacing a denture worn and lost after a period of six years' instead of six months' use would, it seems to me, depend entirely on the dentist's capability of honestly and very frankly

describing the actual condition of the stolen appliance, along with a consideration of the financial position of the patient and his willingness to appreciate the somewhat unusual predicament in which the dentist finds himself. The dentist will have to use his own better judgment in reaching his conclusion. There is, however, a great satisfaction in realizing that one has been generous to a fault, at times, with patients who can appreciate his efforts to satisfy them. As the financial outlay would undoubtedly be more than offset by the favourable publicity which any reasonable patient would be bound to give him if he feels that he has been more than fairly treated, I would certainly consider it money well spent, even though the dentist found that he had to bear the entire expense of a new denture.

It is my impression that the old adage, "Once bitten, twice shy," might very appropriately apply in the above case and that a dentist who has been unfortunate enough to have been embarrassed once in this way will certainly take extraordinary means of guarding himself in the future against a possible repetition.—*G. Guelph Armitage, Montreal.*

REPLY FROM ONTARIO:

The problem presents an embarrassing situation for both parties. To my mind, however, the dentist should accept full responsibility for providing the patient with a new denture to replace the one that was lost; moreover, there should never be any doubt created in the patient's mind as to the willingness of the dentist to assume this responsibility. The question of how long the patient has worn the particular denture has no bearing. The fact is, the patient entrusted his denture to the dentist for repair and he lost it. If, by mishap, in vulcanization it was rendered useless, the dentist in

question would surely make it good. Another type of mishap has occurred here and I think the patient can justly expect the dentist to accept responsibility. In determination of a fee for a repair, some consideration should be given to possible hazards in general, while such cases are in the dentist's care.—*T. R. Marshall, Toronto.*

REPLY FROM ONTARIO:

In a case of this sort the relation of bailor and bailie is created, and when a chattel is placed in the custody of a bailie, who is to do work upon it, he is bound to exercise reasonable care, and is not liable unless negligent. If the chattel is damaged or lost, the onus of proving that he has used such care rests upon the bailie. If he satisfies the Court that he has used such care as a careful and prudent person would exercise in respect of his own property, he has discharged that onus, and the bailor must then prove negligence affirmatively. If this is not done the bailie is freed from liability and can collect his charges. Assuming that the same care was taken of this denture as any other dentures that might be in your possession of articles of any value, we would not think that the owner of the denture would succeed in establishing negligence where thieves broke in during the night and stole the denture. The situation might be different if an article entrusted to a bailie was carelessly left where any chance pilferer would have an opportunity of stealing it. The time when the denture was made has nothing to do with the legal position.

The above opinion was obtained by W. H. Woodrow, of Brockville, through the Dentist Legal Protection Association of Ontario.

Dr. Woodrow further states, that from a purely business point of view it might be wise to make a new denture.

REPLY FROM ONTARIO:

I would assume the responsibility in this case. There may not be a legal one but to me there is a moral one. When I accept a patient's artificial denture I consider I am responsible for it until it is again in the patient's hands—and this regardless of the circumstances. I do not feel that either its age or its condition alters my obligation in the matter. In the event of fire or theft, of course, insurance which I carry, and which I think every dentist should carry, would be protection against personal loss. Looking at it from the patient's standpoint I cannot see that he should be put to any more expense than the charge for the repair.—*John A. Bothwell, Toronto.*

REPLY FROM ONTARIO:

I feel that the dentist is fully responsible for any articles left in his care and that a new denture should be supplied at the regular fee for repair.

This is not only my opinion but that of several others with whom I discussed the question.—*J. N. Stewart, Hamilton.*

REPLY FROM SASKATCHEWAN:

The question submitted by Dr. X. of Winnipeg raises a very interesting point. There are two phases to the question, (1) the legal and (2) the moral, responsibility of the profession.

Legally, there is no liability on the part of the Doctor unless he was negligent in the care that he took of the denture. The question is one that has been referred to the Courts very often and the answer has always been that apart from negligence there is no liability.

Morally, the question is different. The profession has always treated its patients on a high and generous plane. Further, there is the general impression abroad

that possession of an article carries with it the responsibility of returning it. The public seems to feel that the profession should be insured against such losses. Under these circumstances I feel that the generous course to follow would be to provide the patient with a new denture at the cost of the necessary repairs to the one stolen.

The value of the denture to the patient has a definite bearing on the question. In no case should the doctor be called upon to provide more than the value of the denture to his client. In other words, the patient should not profit by the doctor's misfortune.—*Judge Gordon of the Court of Appeals of Saskatchewan. Obtained by G. W. Fraser Smith, Regina.*

REPLY FROM SASKATCHEWAN:

The patient left the denture in good faith and although it was through no fault of the dentist that the loss occurred I would consider that the dentist should shoulder at least the bulk of the cost of replacement.

In the case of the denture used for only six months the patient would naturally consider it as practically new and would feel less inclined to undertake a portion of the replacement cost. On the other hand, if the denture had been used for six years the patient might quite reasonably accept the suggestion that a new denture be made at say half the usual fee.

If the patient should not respond to any such suggestions as to compromise I should prefer to replace the denture, thereby clearing my own conscience in the matter and sending the patient away feeling that he had been very fairly and even generously dealt with. The good will of the patient, to my mind, is a very important factor in such a case.—*George L. Cameron, Swift Current.*

REPLY FROM SASKATCHEWAN:

In replying to this question, it is necessary at the outset to assume that the dentist or his staff took the usual precautions about locking the office when leaving it, and that there is no actual legal obligation involved.

The dentist wants to know what is the right thing to do, and submits several questions, one of which contains the heart of the problem. Is he "under any real obligation to do anything in the matter, under the circumstances," and if so, what? He evidently recognizes that life is full of unenforcible, moral obligations, which to most people are just as binding as the legal ones, hence his desire to do the right thing, or to be fair. He probably also recognizes that a professional man must be ready to go the "second mile" on occasion, in order to secure or retain the good will of his patients.

Suppose the dentist sent a suit to his favourite cleaning establishment and while there the suit was burned or stolen. The head of the business, as a careful business man, carries fire and theft insurance and the insurance replaces the suit. By carrying insurance he is protected against both legal and moral claims. Should dentists not follow his example?

While it is a difficult question to decide how far the dentist's responsibility goes in the case submitted, I consider he is under a definite moral obligation to replace the denture under certain conditions. If the patient is a fair-minded individual and in good or average financial circumstances, the situation could be presented in such a way that he would be glad to pay the actual cost of production. If, however, the patient's financial status makes that extremely difficult or impossible or the cost of production could not be justified to

that particular patient, the dentist, I believe, would be making a splendid investment in good will by making the denture for the estimated cost of the repair, as, of course, the patient expected to pay that originally.

If the denture had been worn for six years instead of six months, I think the new denture made for the same fee as would have been charged for rebasing the old one could be readily justified, in most cases.—*F. C. Harwood, Moose Jaw.*

REPLY FROM ALBERTA:

What the actual legal responsibility of the dentist may be in the case of loss by theft one cannot say; however it should be quite clear that the ethical responsibility demands replacement. Since the denture was left in a state requiring repair, the dentist is entitled to the fee usually charged for that type of repair. When a dentist accepts custody of the property of a patient for purposes of repair he should make use of the usual means of safety and insurance to guard against loss. To charge the patient "actual cost of production" it seems to me would not be consistent with our professional standards. A poll of laymen was unanimous in agreement with this opinion.—*V. H. Macaulay, Calgary.*

REPLY FROM ALBERTA:

This question naturally divides itself into three parts—the legal aspect, the ethical aspect, and the matter of expediency.

LEGALITY—As far as Alberta is concerned, an excellent legal opinion is that if personal property were left by the individual with a business or professional man, and stolen from his premises, the loss should be sustained by the owner of the property. The exception to this would be where there was contributory

negligence—in other words, if reasonable care had not been taken of the property entrusted by the owner.

ETHICS—I do not think it would be fair to allow the patient to sustain the loss, under the specified circumstances. The loss should be shared.

Apparently the denture was a satisfactory one, and the equal in value to the patient with a new one, except for a minor repair. If this is so, I would think a fair arrangement would be the replacing of the denture at the cost of production.

Whether the denture had been worn six months or six years would not alter the situation, provided it was perfectly satisfactory.

Should the denture not be a satisfactory one, or the breakage likely to recur, due to uneven pressure, or absorption of the ridge or some other such factor, then it would seem fair that the patient should pay an additional sum for the service rendered.

EXPEDIENCY—Under certain circumstances, it would be better to replace the denture without cost or argument.

Also consideration should be given to such factors as the hardship imposed on a patient of limited financial resources, or whether the patient was of a satisfactory type and of long standing.—*John W. Clay, Calgary.*

REPLY FROM BRITISH COLUMBIA:

I believe that the dentist is morally and probably legally responsible for the loss of the denture. It is therefore the duty of the dentist to make good the loss in some way satisfactory to the patient.—*Emery Jones, New Westminster.*

REPLY FROM BRITISH COLUMBIA:

This is a case that can be taken care of by just being human and the dentist will reap the benefit a thousand fold. Tell the patient exactly what happened and inform the patient that you are going to go ahead and make him a new denture and I am sure any patient would gladly pay a small cost of production. (Do not let the patient know the cost of the material or teeth.) If the patient refuses to be reasonable, charge a fee for what the repair would have been and give him the denture and you will have done one of the many humanitarian things which dentists do every day.

You are responsible for the patient's denture while it is in your office. All precious metal dentures and bridge work belonging to the patient should be kept in a safe, covered by insurance.

The case would not be altered had the patient worn the denture for six years instead of six months.—*W. J. Gibson, Victoria.*

In any form of National Health Service adequate in restorative dental service for adults would be prohibitive in cost, whether handled as a health insurance benefit or by taxation or both. This would be true even though administrative costs were negligible which of course they could not and would not be. It would be true even though the dentists rendering the service were paid unreasonably low fees or salaries and were forced to their limit of production. The "blood and vulcanite dentistry" which is the product of the foreign systems is proof enough of this contention.

We, as dentists, know from experience and observation that the only hope of successfully coping with dental disease and its far reaching effect upon general health lies in prevention. Therefore let us urge that the government and the social agencies attack the problem from this angle.—Kenneth C. Pruden, in New York Journal of Dentistry.

The Forum

● THE TREATMENT OF CHILDREN'S TEETH

by A. T. PITTS, D.S.O., M.R.C.S., L.R.C.P.,
L.D.S.

Consulting Dental Surgeon to the Hospital for Sick Children, Great Ormond Street; Dental Surgeon to the Royal Dental Hospital and to the Middlesex Hospital.

(Condensed from a paper read before the Dental Officers Group of the Society of Medical Officers of Health; Published in Public Health, June, 1937.)

THERE is a natural tendency to consider the work of the school dental officer in terms of the conditions prescribed by his work. He is engaged in mass dentistry, and the number of those requiring his services always exceeds both his capacity and the time available. That these conditions will have a bearing on the nature of the work is both natural and obvious.

I would suggest that the first deciduous molar be regarded as unsavable once approximal caries has commenced, and that it should be extracted as a routine procedure. If this be done, the more important second molar has its chance of lasting, more than doubled.

To sum up the general lines of the treatment of caries in children, in the first group up to seven years; carious incisors should be removed. If approximal caries is present in the first milk molars, these teeth should be extracted. The canines and second molars being thus isolated can be treated with a good prospect of success. Such lines of treatment will give a child a clean mouth and though some loss of masticatory efficiency may result, yet this is more than compensated by the removal of sepsis.

In the second group, ages seven to eleven, carious first molars if present should be removed. If the second molars

are carious the advisability of retaining them will depend on the extent and site of caries. If the cavity is occlusal, then they may be worth saving, provided that the pulp is not involved. If the latter is exposed, still more, if it is dead, extraction is the better course. If there is approximal caries distally, it must be remembered that the adjacent side of the first permanent molar will scarcely escape. For this reason a distal cavity of any size in the second milk molar, even though in theory savable, should be regarded as an indication for extraction in order to give the first permanent molar a better chance.

I feel that I ought to say something on the effects of premature removal of the milk teeth on the permanent teeth.

I am convinced that sepsis in a growing child is so serious a menace that I am prepared to take deliberately the risk that the occlusion of the permanent teeth will be impaired. But I will go further and put in a piece of special pleading and urge that possibly this forward movement of the permanent molars may not be so detrimental as orthodontists would have us believe. During the last few years the problem of the lower third molar has come much to the front. It is now generally agreed that few of the Anglo-Saxon race can accommodate 32 teeth properly. Lack of room for the lower third molar is very common. It brings with it pain and inflammatory sequelae sometimes serious. Even if the symptoms subside and the tooth struggles into some sort of position, the gum around it is rarely healthy, and I feel sure that much parodontal mischief starts

in the gum around these teeth. Now I am going to suggest as a possibility that when the deciduous molars are removed before their normal time, the forward movement of the first permanent molar may allow just enough room for the third molar to erupt without difficulty. If this supposition is correct, we should have an easy passage for the lower third molar to set off against the second premolar being squeezed out of the arch internally. Which is the greater gain, a third molar erupting without inflammatory symptoms and coming into place so that the gum round it remains healthy or a second premolar in normal alignment?

The importance of retaining the permanent teeth needs no urging from me for it is self-evident. Septic teeth should, however, be removed. Exposed pulps present a problem. A small exposure might be capped; I have had some success with such teeth though I regard them as being on probation and I check them regularly, radiographically and otherwise. Where caries is deep and likely to lead to an exposure if all doubtful dentine is removed, I should prefer to avoid an exposure by flooding the cavity with tricesol for a few minutes, putting in a thick lining of osteo and eugenol and base-plate gutta percha on top and watching the tooth for some months before finally filling.

I am not a believer in symmetrical extractions. But if I had to remove three first molars, then I should remove the fourth. It is, however, difficult to dogmatize. In the case of the lower jaw, I think it is best to remove both first molars rather than one, chiefly because it may assist the third molars to erupt into place. But if the first molars had already come forward, so that third molar trouble was not likely, then if one molar required extraction and the other was sound, I should leave the latter. If it is obvious that a child has, or will have

insufficient room for the canines, then the necessity of removing the lower molars does not indicate the removal of the upper molars as well. The ideal treatment of crowded canines is the removal of the first premolars. It is a tragedy to see children with all four first molars lost and crowding still present in the canine region and be compelled to remove two sound premolars in addition. Sometimes the four molars are so carious that their extraction is inevitable, but I would put in a strong plea for the retention of the upper molars in such cases if possible.

Hyatt's views on prophylactic odontology have much to commend them though the prophylactic cutting out of the fissures in small children is not such a simple method as he leads us to believe. A method which is simple and often effective is to clean the fissures and work into them a thin mix of Ames' black copper cement. It is extraordinarily tenacious and remains in place for a long time and certainly preserves the teeth.

I detest copper amalgam and have not used it for many years. I see nothing to justify its use in place of a good silver amalgam.

Base-plate gutta percha has a useful place as a filling material especially when children come just before returning to school with several fillings and a short visit in which to do the work. It will carry on a child to the next holidays, but I do not regard it as a substitute of equal value to a metal filling. Black copper cement will stick to anything and has a useful place, but it will not give good contact and should be reserved for those extensive shallow cavities in which retention of a metal filling is difficult.

No child should be submitted to an extraction without some measure to prevent pain. I am not a lover of local

anaesthetics for children though I admit the difficulties in public dentistry.

In young children of six or under, ethyl chloride is the ideal anaesthetic. Extractions are usually multiple and soft, mushy milk teeth are not always easy to remove. I have seen many thousands of ethyl chloride anaesthetics given without a fatality, and in the hands of a competent anaesthetist I regard it as safe.

Nitrous oxide in older children usually gives a sufficient anaesthesia, though the addition of ethyl chloride for a fractious child or if the extractions are likely to be difficult will often save the situation and enable the dentist to complete his task.

Conservative work should be as carefully done in school dentistry as in private practice. Good work is, in the long run, an economy of time.

Good contact points and clean, cervical edges are the basic principles in filling teeth and their observance is necessary at all times. Nothing can condone neglect of these fundamentals.

● PULP TESTER

AT the F. D. I. Congress I saw demonstrated an "Apis" carbon dioxide pulp tester. This is an apparatus that is used to collect CO₂ snow from a CO₂ cylinder. After its collection the CO₂ snow is rammed into a bakelite tube (external diameter about 1/4 inch, internal diameter about 1/8 inch). When the tube has about an inch of snow in it, approximately 1/8 inch of it is expelled, by means of a plunger, beyond the end of the tube. The "pencil" of CO₂ snow is then easily manipulated, and is applied to any tooth to test its vitality. This method appears to be an excellent one for such a test by employing cold temperature. For one interested in this method of pulp testing a similar appa-

rus can easily be made. A bakelite tube as described above, about two inches long, with a funnel end, and a bakelite ram rod to fit the tube, would not be costly. Carbon dioxide snow can be readily collected in a small chamois leather bag attached to the end of a CO₂ cylinder. The snow must not be handled with one's fingers.—R. M. Kirkpatrick, D.D.Sc., in *Dental Journal of Australia*, October, 1937.

● INTERESTING RADIOGRAM AND CASE HISTORY FROM ALBERTA



MISS S.—was referred complaining of pain in left molar region of mandible. Bicuspid and first molars were in position and small portion of what appeared to be an impacted third molar showed on examination. Roentgenographic films showed horizontal impaction of second molar lying inferior to impacted third. Using mandibular block anaesthesia, a flap was raised and third molar extracted. A small portion of the buccal plate was then removed and the coronal portion of the second molar was severed with chisel and removed. Then the roots were taken out through the space created by the loss of the crown. The area was sutured immediately with horse hair sutures. The patient made an uneventful recovery with very little pain and practically no inflammation.—H. R. MacLean, Edmonton.

● **CORRELATION OF CLINICAL TESTS
WITH MICROSCOPIC PATHOLOGY
OF THE DENTAL PULP**

by ROBERT MARSHALL STEPHAN, D.D.S.
*School of Dentistry, University of Illinois,
Chicago, Ill.*

CONCLUSIONS

FROM the foregoing study the following conclusions are indicated:

1. The normal pulp is without painful symptoms, gives an average response to hot and cold stimuli, gives a response to the electric tester at a variable index, and radiographically shows no periapical changes. 2. The atrophied and degenerated pulp is without painful symptoms, generally gives an average response to electric, hot and cold stimuli but may give a variable or no response, and radiographically shows no periapical change, although it may show secondary calcification in the pulp canal. This indicates that degenerative changes cannot be reliably diagnosed clinically. 3. The acutely inflamed pulp gives painful symptoms, may give average reactions to heat and cold, but generally gives a severely painful response which lasts longer than the normal reaction. To electrical stimuli the response is generally average but it may vary. Generally deep caries is discernible, both clinically and radiographically, but the crown may be intact. The periapical tissue is normal radiographically. 4. The chronically inflamed pulp generally gives no severe symptoms. It is usually exposed to caries. Food forced into the cavity may produce a painful shock. Radiographically the periapical tissue may or may not show involvement. Too few cases of chronic pulpitis were studied to give any weight to this conclusion but in general it agrees with previous investigations. 5. Vascular changes produce painful symptoms which may vary considerably. Not enough cases of uncomplicated vascular change were studied to justify a sound conclusion. The consensus of opinion of

previous writers has been that hyperemia produces increased sensitivity to stimuli, and that in general the severity of the response indicates the degree of hyperemia. 6. The necrotic pulp gives no response to heat and cold tests, but if the contents of the canal are liquid it may give a response to the electric test.—*Conclusions of paper in Journal of Dental Research, August, 1937.*

● **THE BANANA**

BANANAS are a good source of vitamins A, C and E, fair for B and G and poor for vitamin D. The combination of milk with the banana makes an almost completely balanced ration. The final products of metabolism of the banana in the body are alkaline. The banana is a good source of calories (more than 100 calories to a banana), being richer in solids and lower in water than other fruits. It is a good source of quick energy, owing to its high content of easily assimilable sugars.—*Excerpt from editorial in Canadian Medical Association Journal, December, 1937.*

● **CARIES**

IT has never been shown as true that dogs on a vitamin deficient diet develop caries. Undoubtedly, the real basis of our refusal to accept the assurance that an adequate supply of vitamin D, calcium and phosphorus will prevent caries, is based on our clinical experience that it does not make any appreciable difference. No dentist would dream of allowing caries to go nor would he repudiate the necessity of constant supervision because a child was and had been fed on approved lines. How many of us regularly supplement our local treatment with advice on nutritional matters? We would far rather rely on painting the lesion with silver nitrate and dressing it

with a slightly soluble disinfectant cement — a method which is rapidly superseding regular filling in temporary teeth, and teaching us a great deal about caries.—*E. W. Fish, M.D., Manc., D.D.Sc., Melb., D.Sc., London, British Dental Journal, Sept. 1, 1937.*

● MOTHER AND CHILD

IF THE mothers of our 45,000,000 population can be brought to a real understanding of the duty they owe to their children's health we can hope to look forward to a fitter and happier life for all. That is why it is our duty as a profession to behave to the mothers outside our surgeries as we do to the mothers in our chairs. If we sincerely believe in all we say to them once they have come to us, then we should make efforts to bring our information to those who have not yet learned to visit us. We cannot refuse to offer our services to a public that sorely needs them, because of some squeamish fear of being criticized as also serving our own ends. The family practice extends far beyond our surgeries to the huge family of the nation waiting in ignorance for our instruction and care.

High-minded and ethical as we all may wish to be, it is the merest folly to close our eyes to the economics of our position, for it is manifestly impossible to live for our ideals if we cannot live at all. Whether it is the private practitioner, the public dentist or the administrators of our politics, one and all must have a footing on solid economic ground while they are looking up to the stars. That is why the family practice is the sure way of finding personal security for each of us as well as it is the certain method of building up

those associations between the nation and the dental profession which will bring the ultimate happiness of both. The family is the nation—the nation is the people and we are of and for the people. Once more let our vision be that of strong, healthy mothers and children.—*Edward Samson, L.D.S.R.C.S. Eng., F.C.S., in Dental Magazine and Oral Topics, Dec., 1937.*

● TRADITION OF MEDICINE

THE tradition of medicine since the earliest times has been one of service—a service dependent for its success in the curing of disease on mutual responsibility between the doctor and his patient. The American Medical Association has established principles which must govern this relationship between doctor and patient. The purpose of these principles is to maintain for the public the highest possible quality of medical service. As long as human beings are themselves not standardized it will not be possible to provide them with a standardized doctor. Every system of medicine and every change in the nature of medical practice which breaks down this relationship tends to lower the quality of medical service. It is characteristic of medicine, therefore, that it is practised as an art and as a science, without any reference to hours of work or any fixed formula for its administration. These are the characteristics of the profession and the question which we must answer for ourselves and for the people is simply the question as to whether medicine shall remain a profession or become a trade.”—*Morris Fishbein, M.D., as quoted in "Time" June 21, 1937.*

*Not in the clamour of the crowded street,
Not in the shouts and plaudits of the throng,
But in ourselves, are triumph and defeat.—Longfellow.*



"He says he can't work; the drilling makes him nervous."

By courtesy of Dental News.

A smile creates happiness in the home, fosters good will in business, and is the countersign of friends."



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

NOVA SCOTIA



A. W. Faulkner, Halifax

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgecombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

The Forgotten Man in Dentistry

It has been suggested by State Departments in the great Republic to the south that severe penalties should be imposed on employers who, in hiring workers, discriminate against persons forty-five years of age or older. To enforce such a law seems obviously impossible, but the need for such legislation makes one stop and consider.

The man of forty-five or fifty loses his position and because he has reached that age, difficulty is encountered in securing further work and soon he joins that large group of the "Forgotten Man."

In the practice of dentistry the situation is very different in that most dentists are owners and employers and cannot be dismissed, but the forces which mitigate against the man in the business world when he reaches fifty, are driving with undeniable vigour upon the dentist who reaches that age, and only by hard work, clear foresight, and preparation for the otherwise inevitable, can he escape the clutches of this octopus.

The young man graduates, equips his office and starts to work. Everything about the office is new, modern and attractive. He has a fine personality, is vivacious and full of energy. He joins clubs, works on committees, makes many contacts. His popularity grows and his practice increases. In the course of some years, he becomes very busy, and later, possibly, has more work than he can comfortably look after.

Many solutions are found for this problem. He may employ an assistant or assistants and he will have several lady assistants. On the other hand, he may prefer to practice by himself and control his practice by raising his fees. The thought gradually sinks into his mind that these conditions can never change, but they not only can change, but do change in far too many cases. While these prosperous years are happy years from a professional standpoint, they are most critical years and should be watched very closely if he is to reach fifty and be satisfied with the condition of his practice.

During these prosperous years, some patients have gone elsewhere on account of questions about fees, or because of being kept waiting unduly for appointments, or on account of the fact that the dentist had seemed to hurry over the work and had left the impression that due consideration had not been given, etc. Many of these patients do not return and their influence is detrimental.

A number of the best patients move to other parts of the country, and death calls many more.

The busy dentist has not made time to read the dental literature, or to attend conventions, and conditions of practice have changed without him being aware of the fact. After many years, perhaps, he finds that his practice is dwindling. His office has been allowed to run down so gradually that he is quite unaware of the fact. The dental dealer wisely tries to stimulate him and sell him new equipment but he thinks that the dealer needs the business and is not impressed. He decides that the present condition of the practice does not justify purchasing new equipment. He tries to economize and wears his frayed office coat an extra day or two. The patients observe these marks of deterioration, and one by one, are attracted to the up-to-date young dentist down the street with the fine new office, and the man of fifty becomes "The Forgotten Man in Dentistry" in so far as the public is concerned.

To paint such a gloomy picture would not be profitable if there were no solution available, but there are many solutions. Of course, health comes first and should be guarded as one's priceless possession. As mentioned before, editorially, every young dentist should lay aside every year a certain definite amount to be used for new equipment later on, for refinishing and redecorating his office from time to time. If this is done he will not reach fifty and have to say "My practice does not warrant purchasing new equipment."

At the very outset of practice the wise young dentist will vow that he will never neglect reading the professional literature, the joining of study groups, the attending of conventions, the working on committees and so will ensure

always being up to date. He will also determine that his office will be kept modernized, painted and redecorated frequently, also that new equipment will be purchased at reasonable intervals and then kept looking well by careful attention. How often does one enter the office which was furnished twenty, thirty and more years ago and find that much of the original equipment is still being used, threadbare, faded and soiled. My advice is to throw it all out, together with the junk which has accumulated with the years, and start over again.

If economy must be practised, don't start with your laundry or your clothes either, and don't dismiss your assistant except as a last resort, for all this works into a vicious circle. If expenses are noticeably cut, the reaction on patients is often not beneficial.

They become suspicious that all is not well and go elsewhere. One by one they are lured away to the younger man and the more attractive office, and soon to them you become "The Forgotten Man in Dentistry." Then, by all means do not commence to worry, as nothing cripples a man like anxiety. Rather try to scatter joy and sunshine and face the future as best you can.

*"If you have caused one tear the less
Down Sorrow's cheek to flow;
If you have caused one smile the more
On any face to glow;
Then, friend, you have not lived in vain."*

BOOK REVIEW

Year Book of Dentistry 1937—Edited by Charles G. Darlington, M.D., Professor of Pathology, New York University, New York University College of Dentistry; George W. Wilson, D.D.S., Professor of Operative Dentistry, Marquette University Dental School, Milwaukee; Howard C. Miller, Chicago, Ill.; Charles Lane, D.D.S., Dean, University of Detroit School of Dentistry; and George M. Anderson, D.D.S., Professor of Orthodontia, Baltimore College of Dental Surgery, University of Maryland. Published by the Year Book Publishers, Chicago; 304 South Dearborn St., Chicago, Ill.; 816 pages and with 574 illustrations. Cloth. Price \$3.00.

This is the second Year Book of this title and is a splendid reference book on almost

any subject in dentistry and is so condensed that the information can be obtained with very little reading.

Three editions of the 1936 volume were sold out in less than four months. The 1937 Year Book is a distinct improvement over the 1936 volume. It contains the working essence of 451 selected articles from 49 U.S. dental periodicals and 50 publications issued in 19 foreign countries. A special and attractive feature of this year's book is the 257 personal comments by the editors as well as several "guest editorials" by other authorities on special topics. Abstracts of fifteen papers which appeared in the Journal of the Canadian Dental Association are to be found in the 1938 Year Book of Dentistry. We can heartily commend this volume to our readers.—

M. H. G.

CORRESPONDENCE

To the Editor:

In writing to express my appreciation of the able and timely editorials in the Journal, I desire in particular to single out that of Dr. T. R. Marshall, in the December 1937 issue and your own following it, both referring to Canadian dental needs of today.

I am convinced from personal contacts with many Canadian dentists from East, West and Central regions that we are ready for a long forward step in an endeavour to place our national organization in a stronger position from the standpoint of authority and finance.

Doubtless you would welcome an expression of opinion from individual or groups of dentists from all parts of the country on this matter.

The need for an adequate Mouth Health Service is indisputable. I believe that the dentists of Canada are capable and anxious to fulfil this need. The C.D.A. is the logical body to give that "far-sighted, energetic leadership" which is required to provide the plan and the machinery for the purpose.

Let us support the C.D.A. loyally, heartily and effectively.

S. STUART CROUCH, *Toronto.*

NEWS FROM THE PROVINCES

MANITOBA:

Winnipeg Dental Society

The January meeting of the Winnipeg Dental Society was the largest in numbers attending for some time. The speaker of the evening was Dr. W. F. Lasby, Dean of the School of Dentistry of Minnesota University. His subject was "Immediate Denture Service". Dr. Lasby's paper on the subject was supplemented by a film showing in colour the steps outlined in the paper. The film was another splendid demonstration of the superior value of the film for visual education, and it is easy to believe that the time is rapidly approaching when the operative and mechanical branches of dentistry will be taught in the dental schools by films.

•

Manitoba Dental Association

The regular January election of members to the Board of Directors of the Manitoba Dental Association resulted in the re-election by acclamation of the members whose two-year term had expired, namely Dr. N. S. Bailey of Portage la Prairie, and Dr. A. E. Proctor and Dr. C. D. McLeod of Winnipeg.

The officers of the Board of Directors of 1937 were also re-elected for 1938: Dr. N. S. Bailey, president; Dr. A. E. Proctor, vice-president; Dr. J. F. Morrison, Registrar-Secretary; Dr. E. L. White, treasurer.

ONTARIO:

Gift to R.C.D.S.

The Board of Directors of the Royal College of Dental Surgeons of Ontario has just received with grateful appreciation from Miss Neelands of Lindsay, a portrait in oil of her father, the late Dr. Jacob Neelands. The painting was done by Dr. W. G. L. Spaulding, who practised dentistry for many years in Toronto and is a Past President of the Toronto Academy of Dentistry, now resident in Arizona. The portrait has been hung in the Dental Faculty building among those of other celebrated dental personages.

•

Toronto Academy

The Toronto Academy of Dentistry held a very successful joint meeting with the Toronto Academy of Medicine. Six physicians and six dentists read eight-minute papers to two hundred and fifty members of both professions dealing with six different questions.

1. What effect does pregnancy have on the dental tissues, and what advice and care should be given to the expectant mother to protect her dental health and promote normal development of the teeth of her child? Are there changes in the care and diet of the mother after the birth of the baby and during lactation period?

Speakers—Dr. J. Wallace Graham; Dr. A. E. Higgins.

2. What factors influence the growth, de-

velopment and structure of the dental mechanism?

Speakers—Dr. Gordon C. Cameron; Dr. C. Vernon Fisk.

3. (a) What report should a dentist expect from a physician?

Speaker—Dr. George A. Morgan.

(b) What report should a physician expect from a dentist?

Speaker—Dr. George S. Young.

4. What is the dentist's responsibility in regard to his patient's nutrition?

Speakers—Dr. F. F. Tisdale; Dr. T. L. Marsh.

5. What dental conditions influence mental health?

Speakers—Dr. E. P. Lewis; Dr. Glen Mitton.

6. What effect upon general health have dental and periodental lesions?

Speakers—Dr. Almon A. Fletcher; Dr. Edmond T. Guest.

All of the above discussions were of a very high order and will be published in our Journal.—Watch for them.

City Council Grant

According to the *Toronto Telegram* it is mooted that the Toronto City Council may provide funds for dental and medical examination in all secondary schools in 1938 in addition to the present services available to the children in public schools in Toronto.

Dr. F. A. Kohli Is Promoted

Becomes Supervisor of Dental Work for Health Department

Announcement was made by Hon. Harold J. Kirby, Minister of Health, that Dr. Frank Albert Kohli, full-time dental surgeon at the Ontario Hospital School, Orillia, has been promoted to the post of director and supervisor of all dental work carried out by the department. In addition, Dr. Kohli will act as dental surgeon at the Psychiatric Hospital in Toronto.

Dr. Kohli's promotion marks a further step in the reorganization of the Provincial dental services that has been undertaken by Mr. Kirby since assuming office as Health Minister.

Dr. Kohli is a native of Hespeler. He was

educated in Galt Collegiate Institute and the Faculty of Dentistry, University of Toronto. He was in private practice for some six years before becoming associated with the Health Department in 1934.

The Department of Health of the Provincial Government has announced the policy of appointing a full-time dentist in each of the Ontario Government hospitals.

Dr. Walter G. Thompson, of Hamilton, has tendered his resignation as Director of Dental Services in the Province of Ontario, to the Ontario Government.

The President of the Board of the Royal College of Dental Surgeons of Ontario has intimated that according to the Dentistry Act, any dentist in Ontario who has not paid his licentiate fee by January 31 is no longer a registered dentist and in a court of law cannot collect fees for dental services if the patient wishes to contest the claim.

Are You Going to the Chicago Meeting?

If you are and you practice in Ontario, be sure you secure your Canadian Dental Association membership card by sending your annual licentiate fee of \$5 to Dr. Walter E. Willmott, Secretary-Treasurer of the Board of the R.C.D.S., at once. He will arrange to have your Canadian membership card returned to you immediately. A dentist practising anywhere in Canada must be able to show evidence of good standing in the Canadian Association to be entitled to guest privileges in the Chicago Society.

Renfrew Dental Society, at its annual meeting in Pembroke, elected its officers for 1938 as follows: President, Dr. C. M. Purcell, of Pembroke; Secretary-Treasurer, Dr. Beach, of Pembroke.

Dr. F. L. Cole, of Toronto, was guest speaker at the January meeting when he showed motion pictures of some newer methods of making impressions for partial dentures. The Society had delegates from Arn-

prior, Cobden and Eganville. Dr. McDowell acted as Chairman.

Congratulations—

To Dr. A. H. Reid, elected Mayor of Arnprior. Dr. Reid is the youngest Mayor in Ontario and his high office is a climax of some years of municipal service in Arnprior.

To Dr. G. V. Tario and Dr. C. M. Purcell, elected as members of Pembroke Council.

To Dr. K. McDowell, Chairman of Renfrew Board of Education.

No doubt there are many other dentists whose names have not come to our attention, who are taking their part in the conduct of municipal and other public affairs, bringing honour to themselves and our profession. The best wishes of this Journal goes to all for success in their undertaking.

Class of '28—We are holding a reunion this year during the Ontario Convention. Everyone plan to be present without fail and help make it a success.

MURRAY ROBB,
Secretary.

QUEBEC:

Montreal Dental Club

On January 13, the members of the Montreal Dental Club, about sixty in number, assembled in their club rooms, and listened to two of their members, Drs. Earl Laurin and Walter Phelps, present papers on "The Treatment of Pyorrhea Alveolaris by the Electro Coagulation Method" and "The Use of Analgesia in Operative Dentistry" respectively.

Dr. Laurin preceded his instructive demonstration by giving a short history of pyorrhea alveolaris and the various methods of treatment, and then showed a very wonderful coloured motion picture film of his method of treatment, this picture being produced in his own office. Dr. Laurin had models and photographs of some of his cases before treatment and then introduced these patients to the audience and allowed the members to examine the completed cases. His presentation was very well received.

Dr. Phelps gave a short outline of his method of administering nitrous oxide and

oxygen for analgesia, emphasizing the very necessary instructions to the patient before induction. He felt that special attention should be given to keeping records of the patients' impressions during his first experience with analgesia in order that future inductions might be accomplished with dispatch. He remarked upon the splendid recovery results obtained when oxygen was used judiciously.

Refreshments topped off a very interesting and instructive evening. Dr. C. H. Barr, the 1938 president, was in charge of the meeting.

Mount Royal Dental Society

A record attendance greeted Dr. Amshel Gueft on Friday, January 7, when he addressed the Mount Royal Dental Society in the Mount Royal Hotel. Dr. Gueft, who specializes in prosthetic dentistry, is former Associate Professor in Prosthetic Dentistry at New York University.

Selecting as his theme, "Basic Principles Underlying Applied Stresses, Design and Retention of Partial Dentures," the speaker chose the afternoon session for the discussion of some interesting lantern slides depicting the design, construction, and the servicing of partial dentures.

The evening session was preceded by an informal dinner. Then followed a table clinic at which the speaker illustrated in a practical manner his theories regarding the construction of partial dentures. Some interesting and instructive models drew admiration from the large membership present.

Dr. A. S. Solomon presided at both the afternoon and evening sessions.

Dental Nurses and Assistants

Dr. J. O. Crabbe, formerly of Toronto, Ont., and now representing The Heidbrink Co., addressed the Montreal Dental Nurses' and Assistants' Association at its January meeting on the 11th inst. His talk included very valuable instructions to the members about their duties during operations under general anaesthesia, also the care and sterilization of anaesthetic equipment both general and local. Miss Mildred Starr, the president, introduced and thanked the speaker.

NEW BRUNSWICK:

Court Case

The sitting magistrate of Newcastle, Miss A. D. Morrell, gave judgment on December 20, on the case of Douglas Dower, Tabusintac, charged with unlawfully practising dentistry by giving dental treatment, and convicted him of the offence and sentenced him to a fine of \$100.00 and costs or in default of payment to 30 days in jail.—*From Telegraph-Journal of Saint John, New Brunswick.*

BRITISH COLUMBIA:

Vancouver Dental Society

The Vancouver Dental Society's first meeting of 1938 was of exceptionally high standard. The speaker, Frank H. Wanamaker, D.D.S., M.D., Chief of the Oral Surgery Clinic of the County Hospital, Seattle, Washington, gave an interesting paper, with slides, on Ludwig's Angina and deep infections of the neck. After a review of the anatomy, he showed the progress of the infection, diagnosis, and treatment, but the discussion was of greatest interest. Dr. Wanamaker said the chief cause of Ludwig's Angina was the removal of lower bicuspid and molars in the acute abscess condition. He cautioned the removal of teeth under such conditions and recommended, either opening of the pulp chamber or drainage through the soft tissues to give relief, and then removal at a later date. The infection in chronic abscesses has been walled off which prevents the spread of the infection; while in the active abscess condition, there is no protective wall around the area, therefore, the infection may spread along the fascia into the tissues of the neck. It was around this point of immediate extraction that a spirited discussion took place.

Study Clubs

The outstanding study club of Vancouver is the Vancouver Ferrier Study Club composed of ten men who meet one half day a month for nine months. Seven men insert practical restorations for patients in the various classes of cavities. Three men act as reporters. During the evening session, following the clinics, the reporters give their findings and a general discussion follows.

Dr. George Ellsperman, a charter member of the Ferrier Club of Seattle, acts as supervisor at all meetings. This study club is affiliated with the Associate Gold Foil Study Clubs of the Pacific Northwest, composed of clubs in Seattle, Tacoma and Portland, all of which have been started under the tuition of Dr. Walter I. Ferrier. This club meets once a year. Two men from each club operate, while one man from another club reports. A general discussion takes place at the annual banquet.

A point of interest is that the members of this Vancouver Study Club have, at their meetings in 1937, inserted over 225 foil restorations.

SASKATCHEWAN:

Dr. Cameron Honoured

In the list of Canadian dentists receiving "Coronation Medals" is the name of Dr. George L. Cameron, of Swift Current, Saskatchewan, the immediate Past President of the Canadian Dental Association. We regret that we were not able, earlier, to tender our hearty congratulations to Dr. Cameron on this signal honour, probably owing to the modesty of the recipient.

When a member of the profession is honoured the other members are glad to share his joy, and to feel that the profession is itself also honoured.

Dr. Pallen Visits Regina

On the evening of December 20, about twenty-five Regina dentists met around the banquet table at the Hotel Saskatchewan to do honour to Dr. R. L. Pallen of Vancouver, President of the Canadian Dental Association. Owing to the illness of Dr. J. A. McGregor, president of the Regina Dental Society, the vice-president, Dr. W. H. Ross, was in the chair. Dr. G. L. Cameron, of Swift Current, Dr. Pallen's predecessor, was also present and introduced the guest of the evening. Dr. Pallen gave a very fine talk on the aims and objects and some of the problems of the Canadian Dental Association. The speaker made a very strong plea for every dentist in Saskatchewan and, indeed, in Canada to get behind the national organization and make it really

worthwhile. One way in which Canadian dentistry could support its own organization was by increasing the funds at its disposal and thus help it to function in a larger way. He mentioned that some of the provinces have agreed to increase their contribution and hoped all would combine to make possible a really strong national organization.

Regina Dental Society

Some years ago the Regina Dental Society inaugurated a splendid policy when it was decided to purchase each year, with the funds of the society, a recent dental text book. The library so formed is to be for the use of the members of the Society. This year they purchased Dr. Clarence O. Simpson's new book, "Advanced Radiodontic Interpretation". This is a project which might well be copied by other dental societies in Canada.

At the November meeting of the society, Dr. A. J. Brett gave a very interesting review of the book recently purchased. At the same meeting some of the committees appointed to prepare for the Saskatchewan Dental Society's

Convention in Regina this year met and discussed convention plans. All committees reported progress and are hard at work to make the Convention an outstanding success.

The Publicity Committee for the Convention has requested the Journal to announce that the Convention will be held late in May or early in June, definite dates to be announced in the near future.

ALBERTA:

Sympathy Extended Dr. Bulyea

Dentists of Alberta generally, extend their deepest sympathy to Dr. and Mrs. H. A. Bulyea, of Edmonton, on the tragic loss of their son while skiing above Banff on the New Year's holiday. John Bulyea was completing his second year in Medicine at the University of Alberta.

Edmonton Dental Society

Dr. Harold Orr presented a very interesting paper on "Diseases of the Mouth", with coloured lantern slides, to the Edmonton Dental Society at the January meeting.

EMPIRE NEWS

GREAT BRITAIN:

Dentist Pulled His Own Teeth

London's oldest dentist, 90-year-old William John Ridsdale, of Cale-street, Chelsea, who is known in the district as the "Grand Old Man," thinks people are getting fussy nowadays.

He told me yesterday how times have changed since he borrowed his uncle's rent money to register as a dentist in 1878, although he had then been "practising" for years.

"We never used to bother about gas," he said. "You just popped the patient's head under your arm, held it firm so that there wasn't any wriggling, and out came the tooth. A rinse of cold water did the rest and a tot of whisky sent the patient home smiling!" But he thinks people are fussier now.

SIXPENCE A TOOTH

"We didn't do much about cleaning the instruments," he said. "I just popped them in the fire for a second or two so as to warm them before using them on a patient; that's all.

"My uncle, who kept a chemist shop in York, used to pull teeth at sixpence per time. I worked for him when I was a lad before I ran away to London."

A few years ago—he doesn't remember how many—Mr. Ridsdale extracted his own teeth!

His sight is as good as ever, and he can recite long poems and repeat the Latin grammar he learned at school.—*Daily Sketch (London)* Oct. 19, 1937.

NEW ZEALAND:

Scholarship in Dentistry

A scholarship was founded in 1937 by the Trustees of the Dunedin Savings Bank, who made a donation of £500 to the University; the sum to be inserted in approved securities, and the income to be applied for the purpose of providing a Travelling Scholarship at the University of Otago Dental School. The value of the scholarship is to be £35 and is tenable for one year.

GENERAL NEWS

DOMINION DENTAL COUNCIL TIME TABLE ANNUAL EXAMINATION 1938

9.30 A.M. to 12.30 P.M.

2.00 to 5.00 P.M.

MONDAY, MAY 23

Prosthetic Dentistry, Crown and Bridge Work. Physiology and Histology.

WEDNESDAY, MAY 25

Materia Medica and Therapeutics. Operative and Preventive Dentistry.

THURSDAY, MAY 26

Anaesthesia and Oral Surgery. Physics, Chemistry and Metallurgy.

FRIDAY, MAY 27

Medicine and Radiology. Orthodontia, Jurisprudence and Ethics.

SATURDAY, MAY 28

Anatomy. Pathology and Bacteriology.

Clinical Examination and Diagnosis (at the discretion of the Presiding Examiner.)

THE EXAMINATION WILL BE HELD AT THE FOLLOWING CENTRES:

Presiding Examiners

University of Alberta, Edmonton, Alberta.....	Mr. G. B. Taylor
University of Saskatchewan, Saskatoon, Sask.....	Mr. A. R. Weir
University of Manitoba, Winnipeg, Manitoba.....	Mr. W. J. Spence
University of Toronto, Toronto, Ontario.....	Dr. Lloyd Davis
Office of Dr. F. A. Godsoe, Saint John, N.B.....	Dr. F. A. Godsoe
Office of Dr. S. G. Ritchie, Halifax, N.S.....	Dr. S. G. Ritchie
Office of Dr. J. H. Ayres, Charlottetown, P.E.I.....	Dr. J. H. Ayres

CLINICAL EXAMINERS:

Dr. J. H. Ayres, Charlottetown, P.E.I.
 Dr. F. A. Godsoe, Saint John, N.B.
 Dr. S. G. Ritchie, 36 South St., Halifax, N.S.
 Dr. A. D. A. Mason, Faculty of Dentistry, University of Toronto.
 Dr. H. J. Merkeley, 611 Medical Arts Bldg., Winnipeg, Manitoba.
 Dr. P. Winthrop, 316 Avenue Bldg., Saskatoon, Saskatchewan.
 Dr. J. G. Roberts, 807 McLeod Bldg., Edmonton, Alberta.

Post-Graduate Courses

Faculty of Dentistry, University of Toronto

A desire to keep abreast of the changes in the science and practice of dentistry should be innate in every member of the profession. The Faculty of Dentistry of the University of Toronto has always tried to stimulate the minds of its students so that they will carry this idea with them very keenly after graduation. Much knowledge may be gleaned from the dental journals and attendance at conventions, study groups and extra-mural clinics and lectures. A few years after graduation and then at intervals, a better way to reach this aim is to take a post-graduate course. You are then able to refresh your mind and check up in a consecutive de-

tailed manner as to whether you are practising some particular branch of dentistry in accord with the modern methods. Minor changes are sometimes made in procedures, not heralded or spectacular, and even not written about in the journals, but in time these become quite numerous and really change very considerably the former methods.

The Faculty is anxious that graduates may have the opportunity from time to time to return to this Alma Mater and take advantage of specially prepared courses presenting various subjects as announced. It was decided this year in order to allow more time for detailed and comprehensive instruction, and also give the dentists attending an opportunity of put-

ting their instruction into practice under supervision, to increase the duration of the courses to one month.

Periodontia is the subject of the course commencing April 4, 1938, including Radiodontia with reference to its application to diagnosis and treatment of these conditions. This will be under the direct supervision of Dr. Harold K. Box. Dr. Box has developed a new concept of the oral cavity in connection with the secretions of the parotid, sublingual and submaxillary glands, as well as the minor glands of the mucous membrane. From his studies of the reactions of the salivas from these glands, he has divided the mouth into two parts, the vestibule and the oral cavity proper. This division has a definite bearing on the aetiology and treatment of periodontal disease, erosion and dental caries. Further investigations by Dr. Box have suggested a rationale of treatment in relation to these conditions.

A course in Operative and Preventive Dentistry will commence on April 18th, 1938, under the direction of Dean Arnold D. Mason assisted by members of the Preventive and Operative staff. This will stress the dental procedures which have been found most efficient in the treatment of young patients. Cavity preparation and the selection of filling materials will be studied and particular attention will be given to preventive treatments which may be used in the pre-natal period and very early childhood. The latest methods of casting techniques will be emphasized.

It has been necessary to increase the usual fee to \$100 for these extended courses.

•
"Social Insurance Does Nothing for Prevention," Says Noted Viennese Educator, Dr. Hans Pichler.

by DR. RUDOLF KRONFELD

In the Nov. 26, 1937 issue of the *Wiener Klinische Wochenschrift*, one of the leading medical weeklies published in the German language, there appeared an article by Professor Hans Pichler, of Vienna, entitled: "Prophylaxis in Health Insurance Dentistry" (*Vorbeugung in der Krankenkassen-Zahnheilkunde*). This article is of interest because of the reputation of its author and because of its content, and part of it will be translated here. A certain awkwardness of diction in

the following paragraphs is caused by the desire to translate as literally as possible from the original German without stylistic changes.

Professor Pichler is Dean of the Dental Institute of the University of Vienna, and Director of the Jaw Clinic (*Kieferstation*) of the Vienna General Hospital. He is an outstanding oral and plastic surgeon, and a dental writer and educator of renown; his name is inseparably linked with the introduction to European dentistry of G. V. Black's principles of cavity preparation with which he had become familiar during his early studies in Chicago. In 1936, Professor Pichler was President of the IXth International Dental Congress.

In his article he emphasizes the importance of caries prevention by suitable cavity preparation (extension) and proper fillings. Then he points out that those in charge of health insurance dentistry would be in the best position to encourage such a program of prophylaxis. He continues: "But what does social insurance do instead? It sounds hard, but it is true: it ruins dental morale because it forces the dentist to work poorly. It largely eliminates good preventive methods and thus destroys that which has been created by public instruction. Social insurance does not educate the public, but it pretends to offer good or even first class treatment; thus it wastes its limited funds and national wealth by self-deception, by unsatisfactory, even useless, often harmful, and therefore costly, work. Thus there is nothing at all left for prevention or any other progress. Social insurance does nothing at all for prevention. . . .

"Above all, the best organization is worthless and useless when there are no more good physicians. (In Austria, dentists have the M.D. degree.) The social insurance should therefore do everything to prevent the ruin of the good physicians still in existence and to raise the ethical and material level of the younger generations and of the entire medical profession. Today social insurance saws the branch off on which it sits, by ruining the medical profession.

"I do not blame anybody because I am convinced that those responsible for the present laws and conditions which jeopardize public welfare did not know any better, or could not act otherwise. The purpose of my discussion

is to bring about a better understanding of the conditions. But if somebody really has contributed to the present situation knowingly and without necessity, perhaps out of egotistic or political motives, then he should feel concerned by my opinion as a public enemy of the worst kind."

In the present era of change and innovations, these words of criticism written by the dental leader of a country in which ninety per cent. of the population is connected with some sort of health insurance program, should not be permitted to be overlooked.—*Bul. Chicago D. Society. Dec. 23, 1937.*

Dramatic Radio Program of Chicago Dental Society.

The second sketch in the dramatic series was presented over Station WGN on Friday, December 17, as part of the *Good Health and Training program*. In this sketch, the fluttering Mrs. Mason returned to Dr. Lawrence's office with her eight-year-old daughter, Josephine, and dentists who listened in recognized the all too familiar scene of the child who has been terrorized by the parents' bad psychology. Kay Campbell appeared again as Mrs. Mason, and Fred Howard gave his usual stimulating performance as Dr. Lawrence.

Did You Know That

Americans are continuing to increase their consumption of cigarettes, the upward rate being about 10 per cent. each year since 1932. The Bureau of Agricultural Economics estimates that 53,000,000,000 cigarettes were produced last year, or 1,200 each for every man, woman and child in the country. *Fr: U.S. News 11-22-37. (A.D.A. Press Release.)*

Annual Meeting of Canadian Dental Hygiene Council

The Annual Meeting of the Canadian Dental Hygiene Council was held in the Arts and Letters Club, Toronto, on January 14. In addition to the reports presented, illustrated addresses were given on "What a Supervised Health Program can Accomplish," by Dr. Allan Roy Dafoe, O.B.E., M.D., and Dr. William A. Dafoe, B.B., F.R.C.S., (C), M.C.O.G. (Eng.)

Greater New York Dental Meeting

A BRIEF FOR BREVITY: On Friday afternoon, at the closing general session, with Martin C. Tracy presiding, ten "everyday topics of general interest" were presented by ten eminently qualified speakers. Each essayist was allowed six minutes for the presentation of his designated topic. If the size of the audience and the enthusiasm with which these efforts were received can be accepted as criteria, a revolutionary upturn is due in the near future which is destined to eliminate the long-winded rehash specialists from dental dostrums.—*Editorial, N.Y. Journal of Dentistry.*

Medical Exemptions

(Referring to Bone Bill)

At least one newspaper with a sizable circulation has placed itself squarely behind the Health Guild of America, Inc.—an organization seeking a federal law to permit sums spent on medical and dental care to be deducted from taxable income. Declared the Syracuse (N.Y.) *Post Standard* a short while ago: "Medical expenses are the greatest cause of financial trouble in this country. They are high, sudden, unexpected; and they upset budgets that have been balanced carefully otherwise. It is only just and fair that money spent for these purposes should not be taxed. . . . The demand for such exemptions should be carried to Washington."

Already a bill seeking these exemptions awaits Congress' pleasure. Reposing now on the table of the Senate's finance committee, it would, if legislated, permit deductions for medical and dental services up to \$250 per year.—*Newsweek 12-6-37. (A.D.A. Press Release Service.)*

Fifth Annual Post-Graduate Course in Periodontia

New York University College of Dentistry, New York, New York

New York University College of Dentistry will hold its fifth annual post-graduate course in Periodontia for two weeks, full day, beginning June 20, 1938. The fee is \$100. *Course limited to fifteen men.* Preference given in order of receipt of application.

The course will include aetiology, diagnosis,

and treatment of periodontal disease. Various techniques of pocket eradication will be considered and conservative treatment stressed. Vincent's infection, diagnosis and types of bone resorption; mouth manifestations of systemic disease; periodontal foci of infection; toothbrushing; instrumentation; balancing of occlusion will be thoroughly covered. Taught by lectures and clinical work, each student treating several cases.

Instruction by Doctors Samuel Charles Miller, Sidney Sorrin, J. Lewis Blass, and the entire Periodontia faculty.

For information and application, address the Periodontia Department, New York University College of Dentistry, 209 East 23rd Street, New York, New York.

•

National Income for 1938 in U.S.A. Estimated at 70 Billion

Citizens of the United States will earn a total of 70 billion dollars in 1938, if their

earning capacity equals that of 1936, which is expected.

In the year nearly ended the largest portion of that income—\$33,161,276,000 went to shopkeepers of various kinds. A desire for new cars accounted for the next largest item, \$3,725,438,000 being spent for such vehicles. A rising interest in bicycles took \$5,149,000.

The tobacco bill for both sexes in the United States reached the staggering sum of 1 billion 300 million dollars for 1937. This was about half what Americans paid for clothes, apparel shops taking in \$2,656,242,000 during the year. Shoes for both Mr. and Mrs. America cost \$511,399,000.

The entertainment bill, as would be expected, was quite high for the year. Movies took \$508,196,000 and ball games, various sports events, and other amusements \$699,051,000.

A desire to be well outfitted on golf courses and in other exercise arenas cost \$35,315,000. The sum of \$503,025,000 was spent for radio sets.—*Chicago Tribune* 12-26-37 (A.D.A. Press Release Service.)

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

H. A. Wood, of Edmonton, Alberta, aged 65, died at his home December first, after several months' illness. Deceased was one of the well-known dentists of Edmonton.

Born near Peterborough, Ontario, he came west after graduating in dentistry from Toronto University.

Dr. Wood was an ardent sportsman, and for many years did considerable hunting and fishing. Apart from his professional duties, he took an active interest in Edmonton civic affairs.

He leaves his widow and one daughter, wife of Dr. H. R. Christie, of Rossland, B.C.; one sister, Miss V. Wood, Toronto; and one brother, Everett Wood, Peterborough, Ontario. Funeral services were held in Christ Church, on December fourth.

Frederick A. Axon—of Clinton, Ontario, aged 58, died on January 14, following an extended illness.

He graduated from the Royal College of Dental Surgeons and later took a post-graduate course in Chicago. He commenced practice in Clinton in 1906.

Dr. Axon was a Presbyterian, a past master of Clinton Masonic Lodge and a member of the Clinton Bowling Club.

•

George H. Henderson—of Chicago, died on October 31st from a heart attack. Dr. Henderson graduated from University of Toronto in 1891. As a student he was associated with the late Dr. J. G. Adams. During the last ten years Dr. Henderson specialized in prosthodontia and has been in demand as a clinician and an essayist.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAudeau, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétrault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Le Traitement Chirurgical — Orthopédique des Fractures Simples de l'Arcade Zygomatique

par le DR. J. GERKE

Assistant à la Westdeutsche Kieferklinik de Dusseldorf

Traduit de l'allemand par Dr. J. E. de Wever, D.D.S.

LES fractures, assez fréquentes, de l'arcade zygomatique sont généralement concomitantes aux fractures de la base du crâne et du maxillaire supérieur. Elles échappent au diagnostic par la disparition des symptômes cliniques à côté des phénomènes pathologiques avoisinants: l'assymétrie de la face, due à l'enfoncement de l'arcade zygomatique fracturée, est compensée par un hématôme ou une tuméfaction des parties molles de la joue.

La fracture simple de l'arcade zygomatique est plus rare. Seule l'action directe d'une force (coup, poussée,

chute ou coup de feu) peut en être la cause. L'arcade se fracture à trois endroits de par la poussée vers l'intérieur: la convexité cède et les apophyses latérales sont arrachées de leurs sutures avoisinantes; toutefois les traits de fractures latérales ne coïncident pas toujours avec les sutures de l'arcade zygomatique: tantôt elles se localisent à l'arcade, tantôt elles empiètent ou même affectent en totalité les os voisins. Les fractures comminutives sont rares et toujours causées par des armes à feu.

Le diagnostic de fracture de l'arcade zygomatique est basé sur les symptômes

suivants: ouverture pénible et douloureuse de la bouche; perte partielle et même totale des forces de mastication; douleurs à l'articulation temporo-maxillaire et aux tempes; dans certains cas, entrave mécanique par pénétration d'esquilles dans l'articulation ou dans les muscles masticateurs.

Parfois l'examen clinique de fracture simple ne décèle aucune lésion marquante. L'enfoncement de l'arcade et la dépression locale sont comblés par une tuméfaction jugale; impossible de constater un déplacement, pourtant palpable; d'éléments situés en surface; même l'hématôme dû au traumatisme passe inaperçu. La douleur de l'arcade au toucher, les symptômes précités et enfin la radiographie confirment dans pareil cas le diagnostic de fracture de l'arcade zygomatique.

Pour ces fractures simples, habituellement sans complication, le traitement peut se limiter à des mesures conservatrices. Fréquemment elles guérissent d'elles-mêmes et ne laissent qu'une petite difformité due à l'aplatissement des parties molles; en outre, il persiste souvent une légère limitation des mouvements de déduction et d'ouverture de la bouche. Hamilton, Clark et Bronner signalent plusieurs cas de ces guérisons spontanées. Cependant l'intervention précoce s'impose, si on veut parer à des conséquences fâcheuses telles les névralgies tenaces du trijumeau causées par l'irritation du trait de fracture autour du trou sous-orbitaire; les lésions du nerf oculaire et du globe oculaire; ou encore, la pénétration d'esquilles osseuses dans le sinus maxillaire et la fosse sphéno-maxillaire. D'autres inconvénients soulignent la nécessité de traitement; car l'entrave à la mobilité de la mandibule, la perte de forces masticatrices et enfin l'assymétrie peu esthétique de la face sont toujours une conséquence plus ou moins grave de la

non intervention dans les fractures de l'arcade zygomatique.

De pareille fracture, les traitements sont multiples et leurs résultats varient beaucoup. La plupart des méthodes ne permettent pas une rectification complète dans nombre de cas, d'autres réussissent une bonne mise en place mais, faute de rétention, elles perdent le bénéfice de la correction.

Duverney, Kemper et Scudder préconisent une réduction manuelle; ne donnant, en général, pas de résultat elle n'est guère employée de nos jours. Mattas et Scudder réussissent mieux en ajustant les fragments au moyen de fils introduits avec une aiguille; Strohmeier, Bauer et Ellis se servent de crochets. Bower, Gibson, Lehman et Williams emploient un élévateur introduit par une incision cutanée au-dessus de l'arcade. La cicatrice persistante est une sérieuse objection à cette méthode; aussi Gillies, Killner et Stone reportent l'incision dans les cheveux pour améliorer le résultat esthétique.

Dans le "Chirurg" Bonner décrit cette technique qui lui donna de bons résultats:

"Faire une incision de 3 à 4 cm. dans la région des cheveux au-dessus de l'arcade zygomatique, inciser l'aponévrose du temporal et introduire l'élévateur le long du muscle pour redresser les fragments, en s'appuyant sur le crâne recouvert d'une épaisse couche de gaze protectrice."

La description d'un cas clinique fera comprendre notre méthode de traitement et surtout la rétention des éléments fracturés au moyen d'un crochet d'expansion.

Au cours d'une partie de football, un homme de 28 ans reçoit un coup de coude sur l'hémiface droite. Des douleurs relativement fortes s'étendent jusqu'à la tempe et augmentent aux mouvements

d'ouverture et de fermeture de la bouche. La mastication est impossible à droite. Le médecin soupçonne une fracture de l'arcade zygomatique et transfère l'acidenté à la clinique.

Symptômes cliniques: Légère tuméfaction de la joue droite aux alentours de l'arcade. Ni affaissement ni asymétrie du visage à constater. Minime coloration bleue-jaune-verdâtre à l'endroit où porta le coup. Limitation des mouvements d'ouverture de la bouche. Les dents de l'hémi-maxillaire droit sont sensibles au choc. La réaction au courant faradique est normale. Ni hyperesthésie ni anesthésie.

Analyse de la radiographie: Triple fracture de l'arcade zygomatique droite, sans autre fracture. (cfr. Fig. 1.)

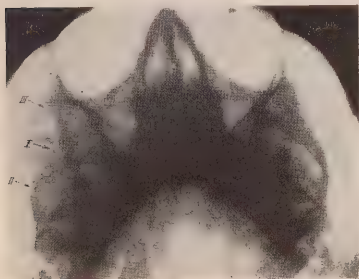


Figure 1.

Radiographie axiale, triple fracture de l'arcade zygomatique.

Traitement: Sous anesthésie extra-orale, on incise sur un demi cm. de long à la hauteur de l'arcade zygomatique et, au moyen d'une pince de Kocher, on pénètre jusque sur l'os. La réduction se fait ensuite avec un crochet à pointe unique bien aiguisée. Cette pointe est ancrée à l'endroit le plus enfoncé de l'os zygomatique. (Flèche 1, Fig. 1.) La figure 2 prouve la parfaite réussite de mise en place.

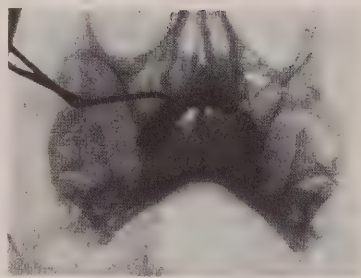


Figure 2.

Radiographie axiale après réduction et coiffe coulée englobant toutes les dents du maxillaire.

La réduction complète se termine souvent par un craquement, subséquent à l'effort exercé pour vaincre la grande résistance des éléments fracturés à reprendre la position normale.

Pour maintenir le résultat, le premier crochet muni d'une poignée est remplacé par un autre combiné spécialement avec un système de rétention. La base de l'appareil est un casque en bandes plâtrées. De confection facile et rapide, son poids n'excède pas 70 gr., alors que les anciens modèles tout en plâtre ou encore en cuir pesaient au moins 600 gr. Notre propre expérience nous donne la conviction que, sans causer la moindre des pressions, ces casques sont des plus stables. La confection et les possibilités d'emploi de ces casques dans l'orthopédie des maxillaires furent détaillés par le Dr. Hofrath dans la revue "Deutsche Zahn—, Mund— und Kieferheilkunde".

Perpendiculairement au plan sagittal, on fixe à cette coiffe craniale (Fig. 3) une canule qui bloque la partie supérieure du rectangle; l'inférieure est maintenue dans une canule soudée à une coiffe (Fig. 2), englobant toutes les dents du maxillaire. Le crochet d'extension (Fig. 3 et 4) glisse horizontalement dans un tube carré, mobile verticalement sur le rectangle support. Deux vis de fixation



Figure 3.
Le système de rétention.

permettent de bloquer le crochet dans n'importe quelle position.

La réduction n'est pas toujours des plus faciles, parfois il est même impossible de ramener les fragments en position normale et de rétablir la convexité de l'arcade. Dans pareil cas, on améliore et même parachève la réduction au moyen d'élastiques tendus à volonté entre le petit crochet soudé sur la pointe d'ancrage et les deux fixés au rectangle support. (cfr. Fig. 3.)

La pointe d'ancrage fixée au rectangle support est maintenue jusqu'à ce que tout danger de déplacement soit écarté. Ainsi le résultat obtenu reste acquis. Le système de rétention empêchant le patient de dormir sur le côté malade, obvie à une position néfaste à l'immobilisation des fragments.

La description détaillée de cet appareil de rétention est une page d'importance

dans la littérature médicale. Elle marque un terme à l'insuffisance des moyens de fixation et permet à l'avenir d'éviter les fréquents déplacements de fragments, après réduction de fracture de l'arcade zygomatique. De nombreux praticiens ont cherché à obtenir une immobilisation par différents moyens. Gillies, Killner et Stone mirent un petit coussin sous l'arcade; Bronner transplanta quelques fibres du temporal au-dessous de la dépression; d'autres, comme Mattas, protègent la lésion avec une cuvette en verre.

Après deux semaines, l'appareil peut



Figure 4.
Le crochet d'extension in situ.

être enlevé. Sur nos patients nous n'avons observé aucune sorte de trouble. La boutonnière pour le crochet guérit en quelques jours. De visu aucune dépression à noter et l'efficacité masticatrice est intégralement récupérée. Bref, le résultat final tant esthétique que fonctionnel, est des plus satisfaisants.

Résumé: Description d'un système pour réduction et fixation de fracture de l'arcade zygomatique.

Deutsche Zeitschrift für Chirurgie
(Band 247, Heft 5 and 7.)

Doit-on Extraire Toute Dent de Sagesse?

par GERARD DE MONTIGNY, B.A., D.D.S., M.S.D.

LES recherches, les statistiques et les communications traitant des dents de sagesse ne se comptent plus; ces dents ont été et sont encore le sujet de discussions élaborées chez les dentistes et les stomatologistes; les uns se sont évertués à prouver leur utilité fonctionnelle et à prôner leur conservation à outrance; les autres en ont fait des boucs émissaires de tous les troubles locaux et généraux d'étiologie obscure et ont réclamé à grands cris leur disparition à bonne heure.

Que faut-il penser de ces opinions divergentes énoncées par des adversaires d'égale valeur et de probité identique?

D'abord parlons des dents incluses.

Les dents de sagesse incluses

Les dents incluses sont des organes dénués de fonction physiologique et peuvent être comparées à des corps étrangers logés dans les tissus. Ceux-ci ne peuvent tolérer ces parasites sans réagir et cette réaction se traduit par une inflammation de nature à chasser l'intrus hors de l'organisme; mais les dents incluses ne peuvent être éliminées, ni résorbées; les tissus adjacents manifestent une inflammation chronique et ces amas de cellules, vivant une existence anormale, deviennent des foyers privés de leur fonction physiologique.

Les troisièmes molaires incluses offrent un terrain éminemment favorable à toute prolifération microbienne; en effet, dans environ soixante-quinze pour cent des cas, il existe une fissure gingivale permettant l'entrée de la flore salivaire dans la cavité pericoronaire de cette dent. Les infections susceptibles de naître dans ce cul-de-sac sont légion; entreprendre leur énumération dépasserait le cadre de cet article; contentons-nous de nommer les plus fréquentes: adénite sous-maxillaire, amygdalite, stomatite, cellulite, trismus,

ostéo-phlegmon, nécrose osseuse, supuration de l'articulation temporo-maxillaire, phlébite des sinus, douleurs névralgiques (surtout oreilles et yeux), épilepsie, paralysie, névrite, perte de vision etc.

Chez les enfants, elles peuvent occasionner non seulement des kystes et des désordres nerveux, mais aussi des malocclusions et des irrégularités dans les arcades dentaires.

Plus tard, de quinze à vingt-cinq ans, tout est possible; les dents antérieures peuvent être entassées les unes sur les autres et l'infection se loger dans les régions distales à ces dents mi-incluses.

A l'âge adulte, plusieurs maladies chroniques ont une étiologie dentaire et l'alvulsion de ces dents présente alors parfois des difficultés, qu'une prévoyance logique et pleine de sens aurait pu éviter.

Il vaut donc mieux extraire toute dent incluse, qui ne peut effectuer une éruption normale ou qui ne peut être amenée dans une position fonctionnelle; et cela, si possible, avant que les racines ne soient complètement calcifiées.

Nous croyons que la profession dentaire adopte une attitude trop passive en face des dents incluses, qui ne manifestent pas leur présence par des symptômes significatifs; cette attitude, il nous semble, vient en conflit avec les données de la dentisterie préventive.

Les dents de sagesse normales

D'après le Docteur Douglas Quick, de New York, la muqueuse gingivale, située distalement aux troisièmes molaires, est l'endroit de la bouche le plus susceptible aux lésions cancéreuses, à cause de sa difficulté d'accès et de son irritation constante; il recommande l'élimination de cette dent, chaque fois qu'un doute se présente à l'esprit.

L'examen histologique de ces tissus révèle un épaississement anormal de la couche épithéliale et une prolifération de la conjonctive; et la chronicité de cette inflammation est le premier pas du sarcôme ou du carcinôme.

Conclusion*

En face des dégâts attribués à ces dents et de la difficulté qu'ont les maxillaires de l'homme moderne d'accommoder l'éruption de trente-deux dents, il incombe au dentiste de trouver une solution à ce problème inhérent au progrès de la civilisation, i.e. la préparation artificielle des aliments et comme conséquence l'utilisation relâchée des muscles masticateurs.

En deux mots, le problème qui confronte le dentiste du vingtième siècle est le suivant: *dans une mâchoire de volume réduit, il lui faut placer trente-deux dents, dont la dimension est la même.* Le sens commun conseille de diminuer le nombre de dents. Mais quelle dent faut-il supprimer et quand faut-il l'extraire?

Tous ont constaté que la dent de six ans, première dent permanente à prendre place dans le maxillaire, est celle qui subit la première et la plus terrible attaque de la carie; cette dent, par contre, est celle qui est la plus soustraite à la vigilance des parents, qui la méprennent pour une dent temporaire.

*Nous prions le lecteur de lire cet article avec attention, car une analyse critique en sera faite le mois prochain par la rédaction.

Il arrive donc que les enfants se présentent à nos cabinets, possesseurs de premières molaires, qui sont dans un état pitoyable; il faut reconstruire ces dents à l'aide d'obturations gigantesques et compliquées; bien souvent les opérateurs ne reculent pas devant l'extirpation de la pulpe, quand l'enfant est d'un âge plus avancé.

En définitive, les premières molaires des adolescents ne sont plus souvent que des amas difformes de métal, qu'on s'est efforcé de conserver pour favoriser le développement normal des maxillaires et diriger l'éruption et l'alignement des dents permanentes.

A cet âge, toutefois, l'élaboration structurale est complétée et les dents permanentes sont en fonction physiologique.

La dent de six ans n'a donc plus qu'un rôle secondaire à remplir: la mastication des aliments. Sa disparition, à cette période, n'occasionnerait qu'un léger inconvénient et donnerait l'espace nécessaire à l'éruption normale de la dent de sagesse.

397 est Bd St-Joseph, Montréal.

BIBLIOGRAPHIE

- 1) J.A.D.A., décembre 1937.—"Should impacted teeth be removed?", par A. Porter S. Sweet, D.D.S., Hornell, N.Y.
- 2) J.A.D.A., mai 1932.—Horace M. Davis.
- 3) J.A.D.A., février 1935.—Carl D. Lucas.
- 4) J.A.D.A., juillet 1936.—J. P. Wahl.
- 5) J.A.D.A., décembre 1936.—D. J. Aubertine.
- 6) New York Journal of Dentistry, janvier 1938.—Douglas Quick, M.D.

*l'Orthodontie **

par PAUL GEOFFRION, B.A., D.D.S., A.I.D.O. (R.A.)

Membre de l'Académie Internationale d'Orthodontie

Professeur Titulaire d'Orthodontie de l'Université de Montréal

Chapitre I.

HISTORIQUE

VOULOIR décrire l'histoire de l'orthodontie serait un travail si considérable que nous nous contentons d'en donner seulement un court historique et, d'ailleurs, tel n'est pas le but des pages qui vont suivre.

Pour ceux qui veulent suivre dans l'histoire les progrès d'une science qui, aujourd'hui, occupe l'une des places les plus importantes en chirurgie dentaire, nous recommandons fortement la lecture du livre de Weinberger sur "L'Evolution de l'orthodontie à travers les âges". Le lecteur curieux y lira que même chez les anciens on n'ignorait pas la science du redressement, et que cette question de malocclusion ou de redressement les intéressait beaucoup, sinon au point de vue santé et prévention à la carie comme de nos jours, du moins au point de vue esthétique. C'est certainement, écrit Gailard, ce qui semble résulter de la beauté et de la perfection des formes de la statuaire antique, qui a pu échapper à la panclastie barbare des hommes et des temps et qui est arrivé jusqu'à nous.

Le premier savant qui tenta d'étudier la correction des anomalies dentaires fut Hippocrate, qui vivait 400 ans avant Jésus-Christ, et qui cite dans ses écrits certains cas d'irrégularités dentaires et donne différents moyens de les corriger.

Plus tard, Pline, dans ses écrits cite quelques cas d'anomalies et recommande certains traitements.

Au VII^e. Paul d'Egine, après des ex-

périences plus précises et plus méthodiques que ses prédécesseurs, tente de corriger certaines anomalies au moyen de l'extraction des dents surnuméraires et le limage des dents en malposition. Le XVII^e. fut le commencement d'une ère nouvelle pour l'art dentaire et l'orthodontie, et c'est à la France que nous devons les progrès et l'avancement de cette science. Aucune autre nation durant cette période de 1728 à 1803 n'a pu la surpasser dans ce domaine. En effet, c'est la France, qui, dans la personne de l'illustre Fauchard, ouvre le chemin aux recherches qui aboutiront à ce que nous savons aujourd'hui.

Dans un traité qui a sa place encore de nos jours et qu'il fait bon de relire et de méditer, il fera remarquer entre autres: "Que les incisives et les canines sont les dents qui sont le plus souvent déviées", que les extractions ne peuvent corriger les malocclusions. Il décrira avec force détails des appareils de son invention destinés à corriger certaines anomalies et dont plusieurs possédaient les mêmes principes mécaniques que ceux employés de nos jours.

C'est ainsi qu'il fut le premier à décrire et probablement à employer l'appareil vestibulaire et lingual, appareils, bien entendu, très grossiers et imparfaits, mais que ceux qui viendront après lui corrigeront, amplifieront, jusqu'à ce qu'ils deviennent les appareils raffinés que nous possédons aujourd'hui. "Si les dents sont en malposition, écrit-il, il faudra se servir d'une bande d'or ou d'argent percée de trous, à laquelle on ligaturera les dents. Si les dents sont inclinées

* Nous publierons toute une série d'articles sur ce sujet. Ils ont été faits spécialement pour dentistes. Il arrive assez souvent des désastres irréparables dus à l'insuccès d'un praticien bien intentionné mais pas suffisamment renseigné. Ces articles constitueront de véritables cours dont tous les confrères pourront profiter.—*La rédaction.*

labialement, on mettra la bande en dedans; si elles sont inclinées en dedans, on mettra la bande en dehors.

Les leçons de Fauchard ne sont pas oubliées et nous voyons à sa suite une foule d'investigateurs qui s'efforceront à leur tour de trouver des remèdes encore plus efficaces aux malocclusions. Parmi ceux-ci nous trouvons les noms de Pfaff, dentiste allemand, qui introduisit l'usage du plâtre en art dentaire. Bourdet, qui modifiant un peu les appareils ou l'arc d'expansion de Fauchard, le recommande non seulement pour l'expansion, mais aussi dans le déplacement de plusieurs dents.

Comme Fauchard, il se sert d'une bande d'or; cette bande est percée de 20 trous et les dents y sont attachées au moyen de fils qui passent à travers ces trous et qui viennent ensuite entourer chacune des dents.

En 1803, Fox, un Anglais, ayant à déplacer les dents en linguo-version, attache à cet arc labial des blocs d'ivoire qui remontant l'occlusion empêcheront l'interférence des dents.

Delabarre, en 1815, remplacera ces blocs d'ivoire par un "crib" ou crochets qui encerclent les dents.

En 1842, Schange, invente la première bague à vis bague employée de nos jours par certains opérateurs.

En 1844, Lefoulon, emploie pour la première fois le mot "orthodontie" et donne ainsi à notre spécialité le nom qu'elle porte aujourd'hui. Il invente un appareil lingual mobile, ressemblant à celui de Jackson.

En 1843, Desirabode se sert de bagues sur les dents antérieures.

En 1845, William Rogers attache l'arc à des bagues d'ancrage.—Jusqu'à cette époque on n'avait aucun moyen d'allonger l'arc à volonté—Rogers intente un "cric", qui n'est ni plus ni moins que le devancier de la partie filetée des arcs modernes.

De 1857 à 1872, il semble que le mouvement s'arrête ou du moins qu'il reste stationnaire et ce sont alors les Etats-Unis, où la dentisterie est importée par la France, qui prennent la tête du mouvement, et qui la garde depuis.

Parmi ceux qui firent accomplir à l'orthodontie les progrès qu'elle a effectués depuis la fin du XIXème siècle jusqu'à nos jours, nous retrouvons les noms de Kingsley, qui, le premier au moyen d'une plaque de vulcanite réalise le saut de l'occlusion et affirme que les dents une fois en position, il faudra les retenir au moyen d'un appareil de contention. Il recommande, en plus, à ses élèves de ne pas être des mécaniciens mais de vrais dentistes sachant quelque chose et vraiment dignes de porter ce nom.

Tarrar, de New York, écrit un livre qui est une véritable mine de données orthopédiques. Angle, père de l'orthodontie moderne, qui, réalisant le premier que l'orthodontie et la dentisterie étaient deux parties séparées de la médecine, fonde en 1899 la première école d'orthodontie. Elève un redressement qui s'oppose à toute extraction et donne sa fameuse classification, monument de bon sens et de simplicité, que plusieurs ont attaquée parce qu'ils ne l'ont pas comprise, mais qui est encore debout et qui y restera tant qu'on en n'aura pas donné une meilleure. "While there can be a difference of opinion regarding his recent methods of treatment, the fundamental principles of orthodontia promulgated by him are the most rational yet submitted and give promise of remaining indisputably correct." (Richard Sumna).

Victor Hugo Jackson, travailleur infatigable, homme de science éminent, qui met à point le premier appareil mobile en métal.

Calvin Gase, de Chicago, brillant écrivain et brillant opérateur—Pullen—Lisher — Howley Bogue — McCoy —

Young—Mershon—Lowrie inventeurs de l'appareil lingual, et enfin Dewey, de New York, 1881 à 1933, qui écrit le livre le plus complet qui existe sur l'orthodontie et qui se pose comme le plus grand adversaire de l'hérédité des malocclusions. Il fut le seul professeur d'orthodontie à démontrer l'importance de l'étude de l'anatomie comparée et de l'histo-pathologie en orthodontie.

Ainsi que nous venons de le voir, l'orthodontie, comme la médecine, est née de l'empirisme fils de la tradition. Pendant longtemps les méthodes employées pour corriger les anomalies dentaires furent grossières et inefficaces, mais point ne faut médire de l'empirisme car il a précédé toutes les découvertes modernes et les a préparées.

Sans vouloir s'extasier outre mesure sur le génie des anciens, il n'apparaît pas téméraire d'affirmer qu'ils ne furent pas des ignorants. Excellents observateurs, ils surent tirer de l'étude des faits avec les moyens primitifs dont ils disposaient d'ingénieuses déductions bien souvent confirmées par ces deux juges impartiaux : le temps et le laboratoire. Il ne faut donc pas mépriser ceux qui nous précédèrent mais rendre hommage pour ce qu'ils nous ont transmis.

Chapitre II.

IMPORTANCE DE L'ÉTUDE DE L'ORTHODONTIE

A ceux qui prétendent que dans les écoles professionnelles, l'enseignement de l'orthodontie devrait être mis de côté et laissé aux écoles de perfectionnement, nous répondrons avec LeRoy Johnson : "Que d'une manière générale la chirurgie dentaire se divise en trois grandes classes :

- 1o. La pathologie dentaire.
- 2o. La prothèse dentaire.
- 3o. L'orthodontie.

La pathologie dentaire s'occupe des traitements chirurgicaux et médicaux et de la prévention des maladies dentaires.

La prothèse dentaire s'occupe de la construction d'appareils artificiels.

L'orthodontie s'occupe de la prévention et de la correction des anomalies dentaires. Ces trois divisions ne sont pas distinctes et une compréhension rationnelle de l'une est impossible sans une connaissance des deux autres ; car toutes les trois ont pour but de maintenir la fonction normale de l'appareil dentaire dont l'occlusion est la clef.

L'occlusion, c'est la base de toute la dentisterie moderne. C'est le but ultime vers lequel se dirige tous les efforts du pathologiste dentaire et du prothésiste, et c'est par l'étude de l'orthodontie, qui est la science par excellence de l'occlusion, que le dentiste ou l'aspirant dentiste trouvera la vraie notion de l'occlusion normale qui est la base de toute la dentisterie moderne.

De grâce, ne nous disons pas comme tant d'autres : "L'orthodontie, à quoi bon l'étudier, je n'en fais pas, je n'en ferai jamais. Il y a assez de spécialistes." Méditons bien ces paroles que LeRoy Johnson adressait à un groupe de professeurs : "Messieurs, personne ne peut être un bon dentiste s'il ne connaît pas l'orthodontie, et l'orthodontiste n'est rien s'il ne connaît pas la dentisterie.

Cependant, pour celui qui veut se spécialiser dans certaine matière et en faire son unique mode de vie, l'enseignement ordinaire donné à l'Université pas plus que lecture d'un livre d'orthodontie ne seront suffisants. Pas plus d'ailleurs que la chirurgie enseignée dans le cours ordinaire de la médecine sera suffisante pour faire un chirurgien.

C'est pourquoi nous avons écrit, à dessein, au début de ce chapitre qu'une connaissance rationnelle et non pas approfondie de l'orthodontie, était nécessaire à tout dentiste vraiment digne de porter ce nom et que cette connaissance rationnelle c'était à l'école ou par la lecture d'un livre qu'on pouvait l'acquérir.

Revue des Revues

par GERARD de MONTIGNY, B.A., D.D.S., M.S.D.

"GENERALITES SUR LES INLAYS ET LES AURIFICATIONS", par M. J. B. Le Ouellec, D.D.S.

L'auteur passe en revue les méthodes récentes de la confection des inlays et l'importance qu'ils ont prise en dentisterie moderne. Dans la classification qu'il en fait, il conserve la conception de Black, d'ailleurs universellement admise. Au cours de son exposé, il fait un parallèle entre l'inlay et l'aurification comme moyen d'obturation. Au lieu de rejeter systématiquement celle-ci, il préconise d'y avoir au contraire recours dans les cas déterminés, qu'il invoque et spécifie. Enfin il termine son travail, avec spécimens à l'appui, par quelques applications pratiques d'inlays d'ancrage en prothèse fixe, semi-mobile et amovible. (La Revue Odontologique, livraison de novembre 1937.)

"L'IMPORTANCE DES DETAILS CHIRURGICAUX APRES L'INTERVENTION, OU LE SOIN A APPORTER AUX PLAIES CHIRURGICALES DE LA BOUCHE", par Harold A. Kent, D.M.D., Boston, Mass.

Le chirurgien est responsable de la santé de son patient depuis son entrée en fonction jusqu'au moment où il est certain que M.X., est remis de sa maladie.

Pour qu'un opérateur puisse traiter rationnellement les plaies, il doit entrevoir clairement le but qu'il se propose et les moyens les plus logiques d'aider la nature dans la réparation des tissus; il doit se pénétrer de l'idée que Dieu seul guérit les blessures et que l'homme ne fait qu'assister son oeuvre.

Le repos et une nourriture appropriée stimulent le développement des cellules vivantes, en augmentant la résistance du patient.

Ces cellules puisant leur subsistance du courant sanguin, celles-là seront bien nourries, en autant que celui-ci contiendra

en quantité les éléments nécessaires à leur évolution physiologique. Les efforts du thérapeute doivent donc tendre vers l'amélioration de la qualité du medium sanguin.

L'opérateur doit surveiller les modifications des plaies chirurgicales pour changer sa manière d'agir, s'il y a lieu.

Nous pourrions soulager les malheureux opérés quand nous nous pénétrons bien des principes fondamentaux qui règlent la guérison des plaies et des lois qui régissent l'art de faire et de traiter ces lésions chirurgicales. (The Apollonian, livraison d'octobre 1937.)

"L'EMPLOI DE L'ANALGESIE AU CHLORURE D'ETHYLE POUR L'EXTRACTION DES DENTS TEMPORAIRES CHEZ LES ENFANTS", par Max Jacobs, M.D., D.M.D., F.I.C.A., Boston, Mass.

L'analgésie peut se définir: un état d'insensibilité sans perte complète de la connaissance.

Il y a plusieurs substances qui produisent l'analgésie par inhalation: éther, chloroforme, protoxyde d'azote, éthylène, cyclo-propane, chlorure d'éthyle.

Tous les anesthésiques généraux énumérés plus haut ne peuvent être employés impunément chez les enfants pour diverses raisons que l'auteur énumère dans son travail.

Seul le chlorure d'éthyle ne présente pas d'inconvénients préjudiciables parce qu'il: 1) n'immobilise aucune fonction physiologique; 2) n'attaque aucun tissu organique; 3) agit sur la respiration et la circulation d'une façon graduelle, qui permet de déceler sans retard tout symptôme inquiétant; 4) atteint le centre respiratoire avant le centre circulatoire et alloue ainsi facilement la pratique de la respiration artificielle; 5) produit l'insensibilité par son action temporaire sur le système nerveux et non par asphyxie.

Son emploi journalier au Forsyth Dental Infirmary (200,000 cas) garantit sa valeur. (The Apollonian, livraison d'octobre 1937.)

397 est Bd St-Joseph, Montréal.

"NOS CONCEPTS EVOLUENT AU SUJET DE L'EXTIRPATION PULPAIRE",
par Louis I. Grossman, D.D.S.,
Philadelphie, Pa.

Après avoir fait l'historique de cette question bien débattue, l'auteur nous apporte l'évidence que les traitements de canaux constituent une opération digne de confiance, qui ne porte pas atteinte à l'économie organique, si toutes les règles

de sa pratique sont observées; il nous certifie de plus que le succès de ces opérations repose à l'avenir 1) sur le choix judicieux des cas; 2) sur l'examen bactériologique de la dent pour vérifier sa stérilité, avant de procéder à son obturation. Aucun problème nous rapproche plus de la profession médicale que celui des traitements radiculaires. Le Docteur Grossman croit que les médecins pourront juger des progrès réalisés dans la science dentaire, par le succès obtenu dans l'extirpation des pulpes. (Journal of the American Dental Association, livraison de décembre 1937.)

L'excès des sports et de la cure solaire

Galien, un des pères de la médecine, avait déjà signalé les dangers de l'excès des sports pratiqués dans les rares moments où l'adolescent arrive à s'évader de l'étreinte de ses programmes. Ainsi le surmenage intellectuel de la semaine subit l'addition déplorable du surmenage physique du dimanche, réalisé sans précaution et sans l'entraînement voulu. Durant les vacances, en été, d'autres excès sont commis, engendrés surtout par le sentiment de la nécessité d'une réaction contre la vie trop confinée de l'hiver. Le nudisme triomphe sur les plages et s'installe dans les stations d'altitude. Les corps s'exposent au soleil dans une quiétude béate, faite de l'ignorance profonde des dangers inhérents à une pratique dans laquelle on a supprimé toute mesure. Et les phthisiologues voient chaque automne à leur cabinet de consultation des adolescents en pleine effervescence de violentes poussées tuberculeuses. Il faudrait savoir cependant que rien n'est plus dangereux que l'insolation des lésions latentes, que beaucoup de sujets jeunes ont à leur isu, dans les poumons, des lésions qui ne demanderaient qu'à rester paisibles et à s'éteindre progressivement sans avoir jamais éveillé l'attention, ni témoigné de leur existence.

"Adolescence et Tuberculose".

Docteur André DUFOURT,

Le IVème Congrès des Dentistes de Langue Française de l'Amérique du Nord

Ce congrès va prendre cette année de telles proportions que les organisateurs ont dû choisir l'hôtel Mont-Royal pour avoir l'espace requis pour de telles assises.

Ce congrès aura un caractère particulier car il y aura bien peu de conférences et beaucoup de films. Il y en aura de canadiens et d'américains. Tous expliqués en français. Il y en aura un tout particulièrement consacré à la prothèse qui doit suivre immédiatement l'extraction.

A l'occasion il y aura une exposition d'appareils et de matériaux dentaires telle qu'on n'en a pas vue depuis bien des années.

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1937-1938

PRESIDENT

R. L. Pallen.....Vancouver, B.C.

PRESIDENT-ELECT

Stephen A. Moore.....London, Ontario

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

R. L. Pallen (Chairman).....Vancouver, B.C.
Stephen A. Moore.....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

R. L. Pallen (Chairman).....Vancouver, B.C.
G. L. Cameron.....Swift Current, Saskatchewan
C. M. Fletcher.....Lethbridge, Alta.
M. H. Garvin.....Winnipeg, Man.
Stephen A. Moore.....London, Ont.
W. H. Woodrow.....Brockville, Ont.
Ernest Charron.....Montreal, P.Q.
Edward T. Bourke.....Montreal, P.Q.
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. E. Blanchard.....Charlottetown, P.E.I.

CHAIRMEN OF COMMITTEES

Dental Legislation.....To be appointed
Dental Health.....H. S. Thomson, Toronto, Ont.
Dental Education.....W. W. Woodbury, Halifax, N.S.
Interprovincial and Foreign Relations.....R. L. Pallen, Vancouver, B.C.
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Archives.....J. Stanley Bagnall, Halifax, N.S.
Journal.....M. H. Garvin, Winnipeg, Manitoba
State Dentistry.....J. S. Lapp, Toronto, Ontario
Indian Problems.....Howard MacDonald, Saint John, N.B.
Ethics.....G. R. Hennigar, Halifax, N.S.
Benevolence.....Leslie Allen, Lethbridge, Alberta
Research.....A. J. McDonagh, Toronto, Ontario
Canadian Army Dental Corps.....G. L. Cameron, Swift Current, Sask.
Insignia.....Kenneth M. Johnson, Winnipeg, Manitoba

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, MARCH, 1938

NO. 3

History of Medicine *

by DR. T. H. LEGGETT, Ottawa, Ontario

AS YOU no doubt all know, we, in Medicine, consider it an honour—a distinction—that our profession is the oldest calling in the world. With the inception of life came the instinct of self-preservation, and hence the birth of our profession.

The early history of medicine is beclouded in a haze of mystery, and a great deal is left to the imagination; but we have some clear glimpses into events which happened in those very early days.

The first recorded physician was Imhotep, chief minister and physician under Zoser, King of the 3rd Egyptian Dynasty 2980 B.C.

Curiously enough, the first recorded woman physician came 250 years later—2730 B.C. She was the mother of the high priest and physician to the King. Women have apparently not been anxious to take an outstanding part in the field of medicine, though there are, at the present time, in the British Isles alone, over 6,000 women physicians, fully qualified and licensed to practise medicine. Likewise there are numbers in other countries.

The physicians in early Egypt were held in high honour and Imhotep became a Deity. He was the God of Medicine with whom the Greeks, 2500 years later, identified their own Asklepios, and the

Romans their Aesculapius. We are all familiar to-day with the name of Aesculapius as the God of Medicine.

While the physician in early Egypt was held in high honour, this has not been the case in all countries, and at all times, throughout the ages. As is quite natural, I suppose, magic, charm, incantation and sorcery played a great part in early medicine; and at times our history has been associated in a large measure with the history of quacks, charlatans and irregulars of various kinds. Perhaps even in this, our own enlightened age, we are not entirely free from those influences.

SCIENTIFIC MEDICINE

Rational or scientific medicine is the practise of medicine based upon sound, consistent, rational principles—"principles formed from the critical judgment of keenly observed facts."

It is astounding to note, that in all the sixty long centuries since culture first came to man, scientific medicine—in contrast to the medicine of "magic and charm," "quacks and charlatans"—scientific medicine has dominated in only two relatively short periods:

1. The Greek Period.
2. The Present Period.

* Presented at the University Club, Ottawa, December¹ 15, 1937, by Dr. Leggett, President of the Canadian Medical Association.

THE GREEK PERIOD

The Greek Period was ushered in by the Greeks about 600 B.C. and ended about 200 A.D. Even after Greece ceased to exist as an independent state and Rome was in the height of its glory, medical writings were all in the Greek language. Physicians in Rome were either slaves or persons of low degree. The Romans mistrusted scientific medicine. They preferred the medicine of quacks and charlatans; and you will recall Cato's wrath against Greek scientific physicians—"corruptors of the race whom he would banish from the city." And Galen, the last of the great medical scholars of this period, in bemoaning the degraded status of the Roman physician tells us that—"Quintus, he who was the best physician of his time, was driven from the city on the charge of having killed his patients."

THE MIDDLE AGES

After the Greek Period came the Middle Ages when scientific medicine was almost extinct. We owe to the priests our fullest gratitude for their faithful efforts toward the preservation of the scholarly and dignified traditions of medicine through the Middle Ages. But the priests would have nothing to do with surgery. The surgery was practically left to the rough and ready fellow, who happened to be the barber because he was used to "cutting and letting blood."

THE PRESENT PERIOD

In England the Association known as the "Company of Barbers" existed as a trade guild practising surgery from the end of the 13th century A.D. on till 1745—only 192 years ago.

By this time the surgeons were becoming more enlightened, more scholarly, and more scientific in their methods. The dignity that accompanies scholarly attainments naturally forced the surgeons away from the barbers and the Company

of Surgeons was then formed by Act of Parliament. Fifty-five years later, 1800 A.D., only 137 years ago—The Royal College of Surgeons was incorporated by Royal Charter. The Royal Society of Medicine had been founded 24 years earlier.

OUR PRESENT DAY PROBLEMS

My purpose, in relating these few historical facts, is to obtain a truer sense of proportion, enabling one to judge more fairly present day conditions, in regard to the relation which the medical profession bears to the public.

We see then that although medical history is old, scientific medicine is quite young. But scientific medicine is a healthy robust youth, and like all vigorous youths has been making rapid strides along the roadway of scientific advancement. Indeed some authors consider that since slightly before the turn of this century, science has made an advance as great, if not greater than in all previous centuries put together. Be that as it may: so far, the medical profession has been able to equal the brilliance of these scientific advances with a marvellous capability for their adaptation to the diagnosis and treatment of disease. But you will agree—the public will agree—and the medical profession will agree—that the fruits of these great achievements cannot be obtained at a reasonable cost.

The head of a family, a comparatively few years ago, need budget in his contingency account for only the fees of his family physician, and a small drug account—rarely for specialist services, nursing services and hospital account; but to-day, science has placed at the disposal of the physician innumerable aids to more perfect diagnosis, and countless methods for the more efficient treatment of disease.

The physician feels it is his duty—and rightly so—to make all these advanced

T. H. LEGGETT

methods available to his patient, if the patient so desires. The head of the family feels it his duty—and rightly so—to take advantage of all these medical blessings regardless of cost for the time being when his loved ones are ill. But the result is, that after a serious or prolonged illness in a family to-day, the head of that family finds his finances crippled for perhaps some future years. It may even prevent him from sending a son or a daughter to college. That is a serious matter.

The public demands the fruits of our great scientific advances but they find these fruits cannot be brought to the bedside of their families at a cost which they feel is reasonably within their means to bear. Thus we realize that we have not been able to secure efficient economic management, over the costs of illness. And now we are realizing rather acutely, that the responsibility for this efficient economic management has not been accepted in any quarter.

MALADJUSTMENTS IN OTHER FIELDS

Let me remind you here that this anomalous condition exists not only in the field of medicine. It exists also in most, if not all, other fields of human endeavour.



We read much in the newspapers nowadays of the distress caused by the application of new inventions to industrial machinery and processes. While this new machinery creates jobs, yet the creation of new jobs can hardly keep pace with the number of jobs lost through obsolescence of machinery not yet very old. Marvellous have been the advances in transportation and in communication—to-day, a man's voice may be heard around the world. With a bountiful measure of all necessary facilities at our command, we have never yet achieved orderly balanced distribution of the necessities of life.

In the production of goods and commodities, scientific progress has furnished us with an excess of the necessities of life—and of luxuries; yet, with overabundance and waste in one part, we have scarcity and privation, its next door neighbour; and we witness the horrifying example of some governments (notably the government to the south of us) instead of solving the problem of distribution of this excess production in needy places, actually destroying foodstuffs which have already been produced and

actually paying producers to curtail production. Now all this is woefully wrong, and it serves us with a stern warning that our economic achievements have fallen far behind in the race with scientific advancement.

TWO PERTINENT QUESTIONS

Granted all this: as to the remedy, we are concerned here to-day with only medical affairs, and the consideration of our medical problem prompts us to seek the answers to two pertinent questions:

1. How can this condition be corrected?
2. Where lies the responsibility for its correction?

First Question: How can it be corrected?

We must choose one of two courses. We must either prohibit further scientific advances or administer them efficiently.

Even in these peculiar times when the world is doing some strange things, no one here can imagine the prohibition of further scientific advances in medicine. The world accomplished practical extinction of scientific medicine in the Middle Ages!

Surely it is unthinkable that we, to-day, should attempt to even slow down the rate of advance: No! let it proceed apace and even gain momentum but let us receive all these advances as blessings and administer them as blessings which nature intended—not as curses breaking the hearts and bowing down the heads of families who happen to have more than their share of sickness within a short period of time.

HEALTH INSURANCE

A tablespoonful of iodine taken into the stomach of an individual would do untold harm; yet countless numbers of patients have taken a tablespoonful of iodine with markedly beneficial effects—when administered judiciously, in proper

dilution, and in proper distribution of dosage.

Health Insurance is a means of protection against the costs of ill-health—the costs being administered judiciously, in proper dilution and in proper distribution of those costs.

Let us not confuse Health Insurance with State Medicine. State Medicine is paid by the State. Health Insurance is paid for by the individual, with the State as a lesser partner. State Medicine is administered by the State. Health Insurance is administered by the individual through an independent corporated body. With State Medicine the doctor is paid a salary by the State. With Health Insurance the doctor is paid for the services rendered, according to a set schedule of fees, by the individual through that corporate body. With State Medicine, that confidential relationship between the patient and his physician is in danger of violation. With insurance that confidential relationship is held sacred and inviolate. State Medicine, like its little companion in iniquity, RELIEF, tends to undermine the self-respect in the individual. Health Insurance preserves and strengthens the self-respect in the individual.

If we have not the foresight, courage and initiative to inaugurate Health Insurance, State Medicine, like relief, will come of itself through force of circumstances. The inauguration of Health Insurance is a large measure of assurance against State Medicine.

The ideal of Health Insurance is that the individual may:

1. Consult the doctor of his choice as often as he wishes.
2. May have all the medicines which the doctor deems necessary or beneficial to him.
3. May have the specialist, hospital and nursing services, and dental services to the extent which the doctor finds necessary.

And all the above benefits are paid for beforehand; so that when a person recovers from an illness, his debts in regard to that illness are already liquidated, there being no remaining financial obligations.

This sounds like Fairyland! This is the ideal of Health Insurance, the objective of our attainment. But let us see how it works out in practise. Can we approach near enough to that Fairyland to make our efforts in that direction worth while?

Over 40 different countries have inaugurated a measure of Health Insurance; so we have plenty of precedent to study. In no country in which it has been initiated has it ever been abandoned. Rather it has been in each instance elaborated, and brought nearer and nearer to a state of relative perfection. Great Britain has 18,000,000 of her people with Health Insurance. Germany has 45,000,000 out of a total population of 67,000,000 with Health Insurance. France has 12,000,000 and their dependents with Health Insurance. Belgium has 3,000,000 with Health Insurance out of 8,500,000. Denmark has all her population between the ages of 21 and 60 with Health Insurance. The Scandinavian countries model their system after Denmark and a like condition prevails there.

How is the cost of all this borne?

The cost is borne in varying proportions in different countries, by three parties to the transaction.

1. The employee—The employee is the insured.
2. The employer.
3. The government—The Government's share concerns more or less the cost of administration of the funds, and the share for the indigent and the unemployed. The government is sometimes the employer—this is the dilution of the costs.

In Great Britain .

The employee pays a few pence weekly, week in and week out, month in and month out, year in and year out. This is the distribution of the share costs.

The employer pays a like amount.

The government pays one-seventh to one-fifth of the above total.

Unemployment Insurance is operated in Great Britain under the same Act with Health Insurance.

In France

The employee pays 4½ per cent of the basic wage.

The employer pays a like amount. This will be increased to 5 per cent after April 1, 1940.

There have been subsidies by the government in varying amounts.

In Germany

The employer and the employee each pay half of the entire cost.

The government pays nothing except as an employer.

In Denmark

The government pays a little over 25 per cent.

In Belgium

The government pays 75 per cent of the entire cost, the employee pays 25 per cent.

The employer pays nothing.

In Japan

The insured person's share may not exceed 3 per cent of the true daily wage. The employer pays a like amount.

VOLUNTARY OR COMPULSORY

With regard to that fearful word "compulsory"! In Canada it is compulsory for you and for me to live within certain "Health Regulations." I would hesitate to describe what might happen to you and to me and to our families in the way of communicable diseases, were

all these health regulations abandoned for the City of Ottawa and the surrounding districts. The tremendous advantages gained take the sting entirely out of the word "compulsory." If we would all live voluntarily within these health regulations, there would be no need for making them compulsory. However, with Health Insurance, you may call it contributory, if you prefer that word.

Bismark introduced Voluntary Health Insurance into Germany and it was made compulsory by law in 1883. All the above mentioned countries have tried Voluntary Health Insurance. Italy, Switzerland and Spain tried it. England tried the voluntary plan and after ten years of consistent effort, enrolled 45,000 in the City of London, whereas immediately upon the introduction of a compulsory plan there were 3,000,000 eligible. The experiences of all countries have been practically the same, viz: A small percentage of the provident will enroll voluntarily. A large percentage of the provident and all the improvident; those who need it most, neglect the voluntary enrolment. For this reason these countries have found it necessary to conceive a plan of Health Insurance compulsory within certain limits, the limits varying in different countries.

In England

All those with annual incomes less than £250 (\$1,250) must have Health Insurance.

In France

All those with annual incomes less than 15,000 to 27,000 francs, according to habitation and number of dependents, must have Health Insurance.

In Germany . . .

All those with annual incomes less than 7,200 marks (the mark fluctuates in value, in our currency, between 26c and 40c) must have Health Insurance.

It is generally conceded, in countries

which have established Health Insurance, that a plan, to be satisfactory, must be compulsory within certain limits.

DISADVANTAGES OF HEALTH INSURANCE

Has the plan disadvantages; and, if so, what are they?

1. Will the patient consult the doctor unnecessarily? This has not been found troublesome in countries with Health Insurance. It is easily controlled.

2. Cost? This has not been found to be too onerous. In fact the sum total of cost is much less, and altogether the plan is much more economical, than our present helter-skelter method.

ADVANTAGES OF HEALTH INSURANCE

1. It takes a heavy load of worry off the heads of households and gives a welcome feeling of security.

Contented minds promote health.

Contented workers are better workers.

2. Patients consult their doctors early and diseases are more frequently caught in their incipency instead of in an advanced stage. Hence the time of ill-health is shorter, the cost of illness and the loss of time are markedly lessened.

3. The patient enjoys every privilege in his relationship with his family physician, which he enjoys under our present conditions. The same confidential relationship is maintained. He may go to any doctor of his choice, and has a great added comfort in knowing his bills will be paid promptly, provision for this having been made previously.

4. With its complementary benefit, Unemployment Insurance, it partially does away with that iniquitous institution known as RELIEF and to that extent helps preserve the individual's self-respect.

5. Great Britain has perhaps been the most stable country of all, in this great depression since 1929.

One authority says: "Two things have

kept Great Britain stable during these recent trying years—Unemployment Insurance and Health Insurance."

Second Question: Where lies the responsibility for its correction?

The Health of the people is essentially a national problem. Knowledge, skill and accomplishment cannot come in a high degree to an unhealthy people. Health Insurance is a national problem.

Although our Provincial Governments have wide jurisdiction over health matters at the present time, yet it is gratifying to note that our Federal Government of recent years has shown an inclination to accept more and more responsibility in matters concerning the health of the nation.

The Prime Minister of Canada has recently declared his conviction, and the Provincial Governments, with the exception of Quebec and New Brunswick, have acknowledged the need for Federal jurisdiction in Unemployment Insurance. It is to be hoped that when this question is

dealt with, full consideration may be given to Health Insurance.

The Dominion Government, on June 28, 1935, passed an Employment and Social Insurance Act (Chap. 38, 25-26, George V) authorizing the appointment of an Employment and Social Insurance Commission, and there is provision for the appointment of a Royal Commission for the purpose of making a study of Health Insurance. This Royal Commission has not yet been appointed.

In all our long list of social services, there will always remain great scope for accomplishment, but the health of our people is an ever present need. We may not find in our beloved Canada a "Health Utopia" but we can, by wise measures, approach nearer and nearer that state where, in the words of Job (Chapter V, Verse 26):

"Thou shalt come to thy grave in a full age

Like as a shock of corn cometh in, in his season."

The Royal College of Dental Surgeons of Ontario and The Canadian Dental Association

MAJOR changes of policy in organized dentistry, in any province, cannot judiciously be undertaken without careful consideration and some evidence that such changes will meet with the approval of the members.

The Board of Directors of the Royal College of Dental Surgeons of Ontario in their recent action of assuming a greater responsibility in the Canadian Dental Association were, after most careful deliberation, but putting into effect the wishes of Ontario dentists most

interested in the future of dentistry. It is true that in this province a stronger national spirit has developed, and there exists this conviction that the future of dentistry in Ontario can only be assured by developing and maintaining a strong National Organization.

There may be, however, some who have doubted the legality of the action of the Board contributing to the financial support of the Canadian Association under present legislation. Therefore, the question has been submitted to our

solicitor for his opinion and his reply follows: "9 (2)

February 7, 1938.

Dr. E. C. Veitch, President,
Royal College of Dental Surgeons,
2 College Street,
Toronto.

Dear Dr. Veitch:

In regard to the powers or rights of the College to expend or disburse funds, this is provided for by Section 9 of The Dentistry Act.

It is not easy to deal with this as an abstract question. The main Section states:

"9 (1) All moneys under the control of the Board shall be paid to the Treasurer, and shall be applied for the purpose of the College."

What are the purposes of the College, apart altogether from the specific expenditure authorized by the sub-sections?

In my opinion, a liberal view would be taken by the Courts in deciding whether an expenditure authorized by the Board was for the purpose of the College and that great weight would be attached to the view of the Board that the expenditure authorized by them was for the purposes of the College. The purposes of the College certainly are to advance the general interest of the profession and of the members or licentiates of the College.

Naturally, the Board would not be authorized to expend money which was obviously and clearly not within or for the purpose of the College, but as already stated, there might easily be differences of opinion whether or not the particular matter was for the purposes of the College, and the opinion of the Board that it was so would naturally have considerable weight in any judicial determination.

"I pass over sub-section 2 (a) (b) and (c) and then come to sub-section (d) which reads as follows:

(d) In aid of any association or other body having for its object the protection of members of the College or the adjustment of claims against them for anything done in their professional capacity."

In my view if one of the objects, not necessarily the sole object, of any association or body is the protection of the members of the College, although it may also be for the protection of dentists in other provinces, a grant to such association or body would not be ultra vires, or to put it broadly, any association whose object is to protect the profession of Dentistry generally might receive a grant from the Royal College which would be justified under this sub-section (d).

Yours very truly,

(Signed) I. F. HELLMUTH.

Should there be any difference of opinion regarding the latitude granted under section 9 (1), there can be no doubt that the action of the Board is justified under section 9 (2) (d).

The constitution of the Canadian Dental Association sets forth as one of its objects the following: "To have cognizance of and safeguard the common interests of the members of the dental profession." Its sincerity of purpose in this is amply demonstrated by such accomplishments as the elimination of mail-order dentistry, the adjustment of duties on dental supplies and the securing of more favourable income-tax exemptions.

National problems are upon us and even greater issues seem close at hand. Let us by consolidation and unity stand ready to meet them.

E. C. Veitch.

There's always a voice saying the right thing to you somewhere, if you'll only listen for it.—Thomas Hughes.

Nutritional Influence on Teeth*

by FRANCES KRASNOW, Ph.D.

*Assistant Director and Head, Department of Biochemistry, School for Dental Hygiene,
Murry and Leonie Guggenheim Dental Clinic, New York, N.Y.*

THE title is not intended to convey the idea that tooth conditions are affected very specifically by the intake of certain foods entirely independently of others which are required by the body generally. Recent research is fast reverting to the original concept the organism is a unit entity. Dental health is no less a resultant of those conditions which make for the health and life of the body as a whole than it is itself one of these factors.¹

Only the balanced diet (including proper supply of oxygen) will meet the food requirements for absolute health—be it tooth health, ear health, eye health, the health of any other organ or group of organs, or the general health of an individual. Since life begins *in utero*, the foundations of normal well-being depend upon the supply of the essential materials made available through the mother—the health of the latter not being of lesser importance.² Furthermore, the balanced diet should be viewed as part of a complete medico-dental clinical and laboratory examination. It should be interpreted as a variable depending upon: (1) age, (2) sex, (3) body build (especially weight and height), (4) occupation, (5) climate (season, immediate atmospheric environment), (6) physiological state; i.e. (a) extent of freedom from physical and mental fatigue based on the hours of rest essential to take one through the daily tasks without the

feeling of being tired; (b) extent of freedom from disease, be this due to metabolic malfunction, *per se*, parasitic invasion, or poisoning by toxins of varied nature other than those arising from infection.

These factors determine both qualitatively and quantitatively the make-up of any dietary and, broadly considered, diet regulation is only part of a comprehensive scheme to bring about scrupulous individual hygiene and in turn controlled community hygiene.

A balanced diet may be defined as one which supplies the body at the *required rate* with the proper quantity of substances necessary to build and repair tissues and create heat and energy. The substances may be classified conveniently as (1) proteins including all essential amino acids, (2) lipids including all essential fatty acids, (3) carbohydrates, (4) minerals, (5) vitamins, (6) water, and (7) roughage. Indeed the correct quantity of each food class does not necessarily mean the correct quantity of the essential nutrients. It is extremely important to safeguard the several innate qualities which any foodstuff represents:

1. At the source of production—Thus, milk from healthy cows grazing in good pasture is richer than that from cows fed on dry, carelessly mixed feed; also, vegetables from different soils differ markedly, as for example, those from soils watered by sea water will contain iodine whereas those from soils in fresh water regions are practically devoid of this essential element.

* Read before the Food and Nutrition Section of the American Public Health Association at the Sixty-sixth Annual Meeting in New York, N.Y., October 7, 1937.

Published simultaneously in the Journal of the American Public Health Association.

2. By correct preservation before reaching the consumer—The responsibility of obtaining only carefully preserved products, in good part, falls upon the consumer. Precaution in purchasing new brands will help a great deal toward freeing the market of poor varieties.

3. By preservation by the consumer.

4. By proper preparation—The chief error in this regard is marked overcooking, frequently in uncovered containers and with a large quantity of water which is usually discarded. Such methods deplete the foods of the very properties for which they have been selected—vitamins lose their effective characteristics entirely, or at least to a large extent, due to excessive heat and oxidation; the minerals dissolve when excess water is used, and if poured off as waste leave the particular foodstuff less valuable as a nutrient source. The end result is inferior food with inevitable poor nutrition and ill health either of the organism as a whole or of one or more of its organs. This leads to increased expenditure for upholding health standards.

Food value is not always proportionate to price. Thus, the high cost purified

foods should really be regarded as delicacies and for low income groups must be omitted entirely. Witness also, the favouritism for white-shell eggs as compared with the much less expensive brown-shell ones; or, pure white tightly packed lettuce instead of beet tops.

Variety is frequently stressed as a rule of thumb for obtaining a correct dietary. There is no doubt that greater adequacy may be secured, and if guided by accepted standard requirements daily menus can be arranged which would apparently be commensurate with the needs for normal metabolic activity; yet recent investigation finds that even good combinations may be unbalanced.

Researches on the quantitative salivary analysis of individuals suffering from caries or erosion indicate characteristically different chemical pictures of saliva for different dental conditions.⁵ Chart I sum-

CHART I

ANALYSES ON TOTAL UNSTIMULATED SALIVA¹
SUMMARY OF RESULTS OBTAINED BY THREE COMMON STATISTICAL METHODS
FOR EVALUATING PROBABLE SIGNIFICANCE OF FIGURES

Analyses	EROSION*									CARIES**								
	Average Range Not Overlapping Normal***			Distribution More than 50% Above Average Normal Range			Odds Against Random Deviations Based on D/P.E. ⁶			Average Range Not Overlapping Normal***			Distribution More than 50% Above Average Normal Range			Odds Against Random Deviations Based on D/P.E. ⁶		
	Total	Alk.	Acid	Total	Alk.	Acid	Total	Alk.	Acid	Total	Alk.	Acid	Total	Alk.	Acid	Total	Alk.	Acid
H ⁺ , pH	6.83 + .05	7.19 + .07	6.73 + .04	89	—	—	1341	1.0	15x10 ⁵	6.92 + .06	7.21 + .04	6.71 + .04	62	—	—	26.4	1.9	4x10 ⁵
Calcium	7.6 + .5	5.5 + .5	8.2 + .5	74	25	87	6.3	1.6	13.6	6.2 + .2	6.0 + .25	6.4 + .19	22	11	33	—	1.0	—
Magnesium	0.75 + .10	0.41 + .04	0.84 + .12	68	0	87	8.5	1.0	13.6	0.65 + .06	0.63 + .06	0.73 + .08	65	67	75	5.4	2.2	9.9
Inorganic Phosphate	18.0 + 1.4	12.2 + 1.6	19.7 + 1.5	53	25	60	2.6	2.6	9.9	14.4 + .6	12.6 + .7	15.2 + .7	39	11	50	1.0	6.3	—
Protein	446 + 46	284 + 33	489 + 53	68	25	80	22.2	—	44.8	346 + 24	315 + 33	359 + 39	54	33	67	3.0	1.0	2.2
Lipid Phosphorus	0.52 + .11	0.26 + .11	0.60 + .14	78	50	86	37.4	1.4	44.8	0.20 + .03	0.19 + .02	0.22 + .04	63	78	50	7.3	4.6	3.5
Cholesterol	11.2 + 2.0	5.3 + 2.1	12.9 + 2.5	57	25	65	3.5	1.0	7.3	10.7 + .77	9.2 + .7	11.9 + 1.2	82	67	92	31.4	3.0	26.4

*Erosion refers to subjects suffering from wastings: erosions or abrasions

**Caries refers to subjects with active decay processes only

***Normal values obtained from analyses on subjects who as far as medico-dental clinical and laboratory tests could discern had no ailments—pH: 7.14 $\pm$.04, Calcium: 6.3 $\pm$.4, Magnesium: 0.46 $\pm$.07, Inorganic Phosphate: 15.2 $\pm$ 1, Protein: 298 $\pm$ 17, Lipid Phosphorus: 0.18 $\pm$.02, Cholesterol: 7.5 $\pm$.7

Nutritional Influence on Teeth

marizes some recent data. The analytical figures have been tabulated to show average values, incidence above the average normal range, and odds against random occurrence of deviations from the normal. Thus for erosion, the average hydrogen ion concentration, calcium, magnesium, inorganic phosphate, protein, lipid phosphorus (otherwise called alcohol-ether soluble phosphorus and lecithin) or cholesterol lies entirely beyond that for the same constituent in saliva of normal individuals. Compare the values 6.83, 7.6, 0.75, 18.0, 446, 0.52, 11.2 respectively with 7.14, 6.3, 0.46, 15.2, 298, 0.13, 7.5. The standard deviations are relatively small. None of the average ranges overlap, hence variations from the normal are probably significant. There are apparently two types

CHART II

*The Murry and Leonie Guggenheim Dental Clinic Diet Booklet**

Name _____

Address _____

Weight _____

Height _____

Date _____

Diet Record:

Specific foods and accurate amounts of each taken at every meal and between meals

*The dimensions are 4" wide by 8" long.

CHART IV

Date _____

Chief Complaint: _____

Present Illness: _____

Past History: _____

Family History: _____

General Inspection: _____

Description of local lesion:

(1) Extraoral _____

(2) Intraoral _____

Urine: _____

Blood: _____

Remarks: _____

Diagnosis: _____

Operation: _____

CHART III

NAME _____	NO. _____	DATE _____	OPERATOR _____		REMARKS
KEY DEGREE OF CARIES 1 ENAMEL ONLY 2 ENAMEL & DENTIN 3 INVOLVING PULP + OR - PULP VITALITY DEGREE OF CARIES MISCELLANEOUS RECOMMENDED	RIGHT UPPER	E D C B A	A B C D E	LEFT UPPER	
		7 6 5 4 3 2 1 LINGUAL 1 2 3 4 5 6 7			
R. RECESSED G. GINGIVITIS T.O. TRAUMATIC OCCLUSION R.F. RAREFACTION R.R. RETAINED ROOT I. IMPACTION W. MISSING TOOTH E. EXTRACTED TOOTH DEGREE OF CARIES MISCELLANEOUS RECOMMENDED	RIGHT LOWER	E D C B A	A B C D E	LEFT LOWER	
		7 6 5 4 3 2 1 LABIAL 1 2 3 4 5 6 7			

of erosion, each with a specific salivary composition. One with alkaline saliva yields markedly lower concentrations: hydrogen ion, calcium, magnesium, and protein approach the normal; inorganic phosphate and cholesterol fall below, lipid phosphorus above. The other presents an acid saliva with much higher levels—6.73, 8.2, 0.84, 19.7, 489, 0.60, 12.9 for the analyses in the order listed instead of 6.83, 7.6, 0.75, 18.0, 446, 0.52, 11.2 respectively.

If instead of averages, the distribution with respect to the average normal range be considered, there appears a very high incidence of cases above the high normal level. It is noteworthy that for each analysis, the concentration exceeded the high normal figure in more than 50 per cent of salivas from subjects suffering with erosion. Again, the figures are

accentuated for the acid subgroup. Compare 87, 87, 60, 80, 86, 65 with 74, 68, 53, 68, 78, 57 respectively for the percentage of cases yielding salivary calcium, magnesium, inorganic phosphorus, protein, lipid phosphorus and cholesterol above the high average normal content, again pointing to the probability that the variations are real. Finally, computations for odds against the chance occurrence of differences for the acid group yielded odds greater than 4 for all substances studied and so the suggested statistical significance is verified a third time.

In caries-active individuals variations from the normal are fewer—non-overlapping figures appearing only for pH, magnesium, lipid phosphorus and cholesterol, with values of 6.92, 0.65, 0.20, 10.7 respectively instead of 7.14, 0.46, 0.13, 7.5. Also for caries, there exist

CHART V

*The Murry and Leonie Guggenheim Dental Clinic
Saliva Analysis*

Original Record Card (Side 1)*

Name	Dentist		No.	
Address	Address		Date	
Telephone	Telephone			
Age	Sex	Weight	Height	Race Religion
General Habits:				
Occupation				
Hours of work		Type of work		
Rest: Sleep: Hours		restless		sound
Diet: Supplementary details of diet not in booklet, such as size of portion, enjoyment of food, appetite, regularity of intake				
Water				
Medical Examination: Supplementary details of more personal nature previously omitted				
Saliva	Start	End	Amt.	
Collection				
pH (cell)				
Under oil				
Suction				

*The dimensions are 5" wide by 8" long.

apparently two distinct types—one with alkaline saliva, the other with acid saliva. The former presents a reduction in inorganic phosphate from 14.4 to 12.6 (almost to the same level as in erosion associated with alkaline saliva); pH, calcium and protein remain normal but magnesium, lipid phosphorus and cholesterol are high. On the other hand, differences from the normal are enhanced in the acid saliva subgroup. The pH is depressed to 6.71, magnesium, lipid phosphorus and cholesterol are increased to 0.73, 0.22 and 11.9. Evaluation of the analytical figures by ascertaining the percentage incidence or the odds against randomness showed the same close agreement of the different statistical methods which was indicated for the erosion studies.

It seems plausible to assume a common mechanism at work. The results imply a tendency to that type of derangement often associated with acidic states in the body, notwithstanding that the subjects, for the most part, had no other pathological involvement as far as the usual medico-dental clinical and laboratory tests could discern. Detailed perusal of accumulated data, co-ordinated with the fact that the organism makes every effort to rid itself of acid ions in salt form, led to the examination of the dietary acid-base potentialities in addition to the usual orthodox factors.^{1, 14, 15}

In the plan adopted¹ the chief criteria of physiologic response are subjective guides, clinical manifestations (roentgenograms), weight changes and variation in the chemical composition of saliva. To insure saliva samples which are duplicable and representative of an individual, conditions are set for a definite metabolic plane over at least one week preceding any analyses. They include (1) no recent mishap or illness, (2) thorough brushing of the teeth and washing of the mouth just before retiring

the evening preceding each test day, (3) eight hours sleep during the night prior to each test day, (4) no brushing of the teeth or rinsing of the mouth nor having breakfast (water) or smoking on the morning of each test, (5) a one and one-half to two hour interval between rising and collections, this interval including a fifteen-minute rest period at the laboratory, and (6) a detailed record of meals.

Each patient receives the diet booklet represented in Chart II. The pages are individually dated or otherwise marked when necessary. This is returned the morning of the laboratory appointment and filed with Charts III and IV which have been filled out by the dentist.

Samples of saliva are obtained under the standardized conditions outlined. First, a small sample (about 1.0 c.c.) is collected by spontaneous flow for the determination of the pH, which is carried out immediately.⁸ Then a large sample (40.0 c.c.) is accumulated with the aid of suction and a saliva ejector. As soon as this is completed, the patient is questioned to ascertain supplementary details noted on the original record card shown in Chart V. At this time a full set of x-rays is taken and a final check-up of the extent of tooth involvement is made. Aliquots of saliva are measured for the analysis of calcium,⁹ magnesium,¹⁰ inorganic phosphate,⁹ lipid phosphorus,¹¹ cholesterol,¹² and protein,¹³ (Chart VI).

The weekly food intake recorded in the diet booklet is analyzed with reference to acidic factors (meat, fish, eggs, cereal, flour products), basic factors (fruits and vegetables with few exceptions), milk and milk equivalents, vitamins, water, and caloric intake (Chart VII). This probable habitual consumption together with the other findings assembled, as noted in Charts II-VI, is used to deduce the additional needs

CHART VI

The Murry and Leonie Guggenheim
Dental Clinic

Original Record Card (Side 2)

Name		Dentist		No.		
Analysis: Whole Saliva				Date		
Date	Det	Sample	Reading	Calculation	Result	Final
	pH					
	Ca					
	Mg					
	P In- or- ganic					
	Lipid P					
	Chol- es- terol					
	Pro- tein					
	Misc.					

commensurate with the individual's requirements.

Finally a complete summary is prepared as in Chart VIII. The clinic or the dentist using our consulting laboratory service receives a copy of the entire report for filing and a carbon duplicate of the recommendations given to the patient.

As noted in Chart VIII, the diet is checked for the last week of each month. After the patient has carried out the suggestions for four to six months, another complete analysis is instituted. Chart IX indicates the return to the normal level of phosphorus (inorganic phosphate), magnesium, cholesterol, and lecithin (lipid phosphorus or alcohol-

ether soluble phosphorus) within four months. There was no noticeable improvement in the dental condition at this time. Recommendations accentuated somewhat the decrease of potentially acid food varieties. Dental examination six months later, showed interproximal decalcification arrested and no new cavities.

A sample menu which possesses the balance of nutrients used is presented in Chart X. It was arranged primarily for comparatively low income groups. Changes may be allowed provided substitutions are made from within the same food classes and there is no marked decrease in caloric value unless forced by dire economic stress. A 20 per cent increase in caloric level may be desirable when possible.

CHART VII

The Murry and Leonie Guggenheim Dental
Clinic Diet Analysis*

Re: (Patient)		Date:					
Date							Totals
Acid							
Base							
Milk and Equivalents							
Water, juices Broth							
Calories							

Comment:

Age	Present weight	Present calories
Height	Required weight	Required calories

*This record is on a card 5" wide by 8" long.

Nutritional Influence on Teeth

CHART VIII

*The Murry and Leonie Guggenheim Dental Clinic Salivary-Diet Analysis**

Re: (Patient)

Date:

I Findings

A Saliva

pH	
Calcium	mg. %
Magnesium	" "
Phosphorus	" "
Protein	" "
Cholesterol	" "
Lipid P	" "

B Diet characterized by

- 1.
- 2.
- 3.

C Physiology

Copy of Recommendations sent to patient

Date:

II Recommendations

A Diet

- 1.
- 2.

3. Take

2½ oz. meat or fish

1 egg

2 slices bread

1 inch cube cheese

1 large apple

1 " orange

1 " pear

1 medium banana

X Portion ½ cup cottage cheese

Y Portions 1½

peaches or apricots

Only ½ cup cereal or macaroni

of 4

large dates

or noodles or corn

1½ figs

4 crackers

1 medium potato

1 inch slice cake

½ cup vegetable (spinach, beet tops, carrot tops 3 times each week)

4. Keep caloric intake at Z. Values of common foods:

Meat	2½ oz.	100
Fish	2½ oz.	100
Egg	1	75
Bread	1 slice	40
Crackers	4	100
Cereal or macaroni or		
noodles or rice	½ cup	100
Milk	1 cup	150
Cheese	1 inch cube or ½ cup loose	100
Potato	1 medium	100
Vegetable	½ cup of carrots, beets, beans, peas or like	75
	½ cup leafy	15
Fruit	1 large apple, orange, pear	100
	1½ peaches, apricots	100
	4 dates	100
	1½ figs	100
	15 almonds	100

B Return for analysis 5 months after diet instituted. During this time send to Dr. Krasnow record of weight and diet for last week of each month.

C Report to Dr. (dentist) details regarding health.

D Have thorough medical check-up before commencing recommendations.

*The original summary is recorded on a card 5" wide by 8" long.

CHART IX

Case Report: 16 C, 15 years old, healthy, excellent home of good economic status

12/6/35		4/1/36		10/10/36	
I Findings:		I Findings:		I Findings:	
A Saliva		A Saliva			
pH *	7.1	pH	7.0		
Calcium mg. %	5.3	Calcium mg. %	5.0		
Phosphorus " "	13.2 Tending low	Phosphorus " "	15.5 Increased		
Magnesium " "	0.62 High	Magnesium " "	0.41 Decreased		
Protein " "	300	Protein " "	306		
Cholesterol " "	10.9 High	Cholesterol " "	6.5 Decreased		
Lecithin " "	0.18 Tending high	Lecithin " "	0.14 Decreased		
B Diet		B Diet			
Water, milk low		Milk increased, water low			
Calories somewhat low		Calories increased			
Acid: base 61:45		Acid: base 41:55			
High bread, cake, cereal		Decrease in bread, cereal			
C Dental Report		C Dental Report		C Dental Report	
Caries extremely rampant occlusally and interproximally		Apparently no noticeable change		Interproximal decalcification arrested. No new cavities. Enamel texture improved.	
II Recommendations:		II Recommendations:		II Recommendations:	
Increase milk to 3 glasses		Increase water intake		Continue with previous advice.	
Slowly increase water to 8 glasses		Use pabulum instead of other cereal			
Slowly increase vegetables } especially raw		Substitute fruit for cake dessert			
" " fruits		Use irradiated milk instead of cod liver oil			
Take 2 t cod liver oil					
Decrease slowly bread, cake, etc.					
Keep caloric intake at 1,800					

* The normal ranges are: pH: 7.14 ± 0.04 , calcium: 6.3 ± 0.4 , magnesium: 0.46 ± 0.07 , phosphorus (inorganic phosphate): 15.2 ± 1.0 , protein: 298 ± 17 , lecithin (lipid phosphorus or alcohol-ether soluble phosphorus): 0.13 ± 0.02 , cholesterol, 7.5 ± 0.7 .

SUMMARY AND CONCLUSIONS

Concerted interest and action of physicians, dentists, and laboratories is the keynote of success in health programs. Dental health is no less a resultant of the health of the organism as a whole than it is itself one of the contributing factors. The balanced diet if interpreted as part of a comprehensive scheme will aid greatly in bringing about scrupulous individual hygiene. To do this it is necessary:

1. To learn the detailed needs of the patient with reference to his entire make-up.
2. To recommend diet changes not in generalities but as specific and calculated prescriptions.
3. To institute frequent check-ups in order to obtain the patient's willing co-operation, for without it every effort will be of no avail.

Thus far, the procedure at the Guggenheim Dental Clinic is resulting in data which apparently indicate a nutritional

influence on teeth and point to salivary analysis as an additional objective guide for directing the diet change.

REFERENCES

1. Krasnow, F. Routine Diet and Salivary Analysis at the Guggenheim Dental Clinic. Presented at the Annual Convention of the American Dental Association, Atlantic City, N.J., July, 1937. J. American Dental Association 25: 216, February, 1938.
2. Krasnow, F. Supplement to "Do You Want Your Baby to Have Good Teeth?" Guggenheim Dental Clinic, May, 1937.
3. Bowes, A. D. "Vitamin Units and Requirements." Philadelphia Child Health Society, March, 1937.
4. Munsell, H. E., and Daniel, E. P. "Vitamin Content of Foods." U.S. Bureau of Home Economics, Washington, D.C., 1935.
5. Krasnow, F., Hirschfeld, I., and Oblatt, E. B. Presented before the Committee on Scientific Investigation of the American Academy of Periodontology at the Annual Meeting, Atlantic City, N. J., July, 1937.
6. Pearl, R. "Introduction to Medical Biometry and Statistics." 2nd ed., 1930.
7. Krasnow, F., Oblatt, E. B., and Kaplan, N. J. Dental Res., 15:367, 1936.

Nutritional Influence on Teeth

CHART X

Sample Menu for Child of Five Years

Time	Food	Portion	Caloric† Value	Total Calories
7:00	Water	¾ glass		
7:15	Cod liver oil	2 tsp.	75	
	Cereal (whole seed)	½ cup	52	
	Molasses	2 tsp.	60	
	Milk (Grade B)*	1 glass	170	
10:00	Carrot or beet* (raw twice a week—slowly increasing to greater frequency)	1	15	
11:15	Water	¾ glass		
12:00	Potato	1 (medium)	100	
	Beet tops (cooked 5 minutes in covered pot with no water added after washing). Green cabbage may be substituted. Raw greens introduced gradually.	¾ cup	2	
	Bread	1 slice	40	
	Butter	1 tsp.	40	
	Banana*	1	100	
	Water	¾ glass		
3:00	Milk	1 glass	170	
	Cookies**	2	50	
6:00	Bean or split pea soup	½ cup	75	
	Turnip or similar vegetable in season	¾ cup	32	
	Whole wheat bread (24 hours old)	2 slices	80	
	Substituted by:			
	Fish (once a week)	2½ oz.	50	
	Spleen, heart, lung meat, once a week*	2½ oz.	175	
	Egg (Grade B), twice a week	1	75	
	Butter	1 tsp.	40	
	Fruit in season	1	75	1,176

Candy, ice cream, rolls, fresh bread, cake must be excluded from diet. Total cost of diet is approximately 18-22 cents per day. The schedule may be applied to other non-school ages with proper adjustment of calories, etc.

* Extra milk, fruit or fruit juice, beef and liver desirable if income permits.

† Approximate values only.

** ¾ glass water now or at 4:30.

8. A series of standards in glass cells are prepared by adding to 0.05 c.c. indicator, generally from thymol blue, 0.2 c.c. buffer mixtures containing graded concentrates of M/15 Na₂HPO₄ and M/15 KH₂PO₄. Comparison with these determines the pH of the unknown (0.05 c.c. indicator, 0.15 c.c. water adjusted to pH 6.9-7.0, and 0.05 c.c. saliva) in a similar cell. Usually, this procedure is checked with that outlined in the J. Dental Res., 11:573, 1931.

9. Krasnow, F., Karshan, M., and Krejci, L. E. J. Lab. & Clin. Med., 17:1148, 1932.

10. Krasnow, F., and Oblatt, E. B. In

preparation for publication.

11. Krasnow, F., Rosen, A. S., and Porosowska, Y. J. Lab. & Clin. Med., 20:1090, 1935:

12. Krasnow, F., and Oblatt, E. B. J. Dental Res., 16:151, 1937.

13. Idem. *ibid.*, 13:239, 1933.

14. Hawkins, H. "Dental Decay—What It Is and Means for Its Control." J. Am. Dental Assn., 16:781 (May), 1929.

15. Jones, M. R. "Our Changing Concept of an 'Adequate' Diet in Relation to Dental Disease." Dental Cosmos, 77:535, 651, 747 (June, July, August), 1935.

There are, when you come to think of it, only two things in life that really matter. One is time and the other is health.—Lord Horder, Physician in Ordinary to the King.

The Fournet-Tuller Application of New Mechanical Principles To Produce Full Lower Dentures with Stability Surpassing the Best Modern Upper Dentures*

Discovered by SIDNEY C. FOURNET, D.D.S., New Orleans, La.

Presented by CHARLES SHEPARD TULLER, D.D.S., New Orleans, La.

IN THE presentation of this technique it is our intention to supply the interested and ambitious general practitioner with the means of giving better service to a long suffering public, thereby adding to his pride in professional performance and furnishing a means of increasing his material resources. It is also evident that stable bases will eliminate, at a saving in cost and labour, about half the other unnecessary steps now taken to produce stability by indirect means.

Success in stabilizing lower dentures has been largely a dismal failure in the hands of the general practitioner. Denture specialists have presumably enjoyed a larger proportion of success, but when measured by the standards we are about to show, none have had much reason to boast. It remained for Sidney C. Fournet, of New Orleans, Louisiana, in 1931, to discover the exact reasons for this failure and to recognize and employ the proper mechanical principles to insure complete stability. Knowing of my own efforts at standardizing and improving *upper* denture technique, he associated himself with me as a means of combining and developing our discoveries along practical lines for presentation to the profession. The method is now known as the Fournet-Tuller Full Denture Impression Technique.

One of the first points we want to make is that this technique is so nearly universal in its application that any dentist of reasonable skill who will possess himself of the necessary knowledge and exercises patience and persistence can get results equal to ours in almost 100 per cent of his cases. There is no magic in this, just good common sense in the use of definitely understood principles and a better knowledge of soft tissue anatomy than is commonly possessed. We believe that the intelligent application of this technique is a great stride forward in eliminating that curse of all full denture procedure, indefiniteness.

DEFINITION OF STABLE LOWER DENTURE

Let us pause now and state what we consider to be a completely stable lower denture constructed according to our teaching.

1. It lies in the mouth comfortably and without irritation or disfiguration and is therefore physiologic.
2. It is not dislodged during speech nor in chewing, even in the presence of malocclusion.
3. No form of food or food residue gets beneath it, such as blackberry and fig seeds.

* Read before the Toronto Academy of Dentistry, November, 1937.

4. Its removal from the mouth, even by the owner, can be accomplished only after the atmospheric seal is broken.

5. Resistance to mechanical dislodgment approaches that of the natural teeth. You will see proof of this in our motion picture.

6. Where both upper and lower dentures are worn, any motion caused by mastication will be in the upper, *not* in the lower. In the case of dislodgment it will be the upper that is dislodged.

Now, that is what *we* call a completely stable full lower denture.

The kind of teeth employed or their manner of set-up may be left to the choice of the operator but good practice dictates balanced occlusion or at least an absence of cuspal interference, and the application of any other accepted means of preserving healthy membranes and good underlying bony foundations.

The shortcomings of the ordinary garden variety of full lower dentures are due to the following great faults.

1. Making the denture base *narrow* with a buccal outline following the teeth and soft tissues into the throat instead of following the outline of the bone; thus the width of the base at the heels is much narrower than the mandible, and distal displacement is easily accomplished.

2. Failure number one made it impossible to secure that most important of all physical aids, horizontal stability against shifting or skidding. The mandible being roughly triangular in form with the apex at the median line in the incisor region, a short or narrow lower denture, having no hard distal stops, is very easily displaced by the slightest backward thrust as the denture moves into the ever widening triangle. Insufficient depth of *lingual* flange also permits lateral skidding and the slightest skidding in any direction instantly breaks any possible suction.

3. The third cause of failure is an

absence of *good* atmospheric seal. This is due to covering too small an area and failure to extend the entire periphery of the denture to the zero line, that is into areas where a seal cannot only be secured but maintained. These two retentive measures, horizontal stability and atmospheric seal, are reciprocal in their effect. Horizontal stability prevents breaking the suction and suction prevents the denture from lifting enough to destroy its horizontal stability.

4. The fourth cause is failure to recognize and use the floor of the mouth as operated by the mylo-hyoid muscle and tongue as a *retentive* factor. Probably no one factor is more disastrous to the stability of the ordinary full lower denture than the upward thrust of the mylo-hyoid muscle, yet by our technique we have succeeded in converting this very upward thrust into one of our *most* powerful retentive factors. The untuly mylo-hyoid greatly resembles the bucking bronco who constantly throws his rider until tamed and broken and compelled to work for his master. The mylo-hyoid has, by the aid of the Fournet-Tuller technique, been completely subdued and its formerly misdirected energy is now exerted to hold the denture firmly in place.

5. A fifth cause of failure is the old custom of *arbitrarily* defining the denture edge and then *manually* shaping it with knife, file, and scraper to what the dentist *guesses* is the proper form.

REMEDIES

Now let us see how the remedies for these faults are applied.

First, horizontal stability is secured by extending the heels of the denture buccally and backward until they engage and turn upward on the forward face of the ramus for approximately one-half inch, or the thickness of the index finger when laid in the retro-molar fossa as for a

mandibular injection. Disto-buccally the heels are wide and extend into the buccal fold, to or over the external oblique ridge. The disto-buccal flange is wide and parallels the external oblique ridge, not the teeth. Turned up denture heels do not necessarily run up and contact the forward face of the ramus. They may turn up against soft tissue only. The Fournet-Tuller Technique calls for wide heels that turn up *not* against soft tissue but against *hard* unyielding tissue.

On the lingual side the flange is extended downward, often as much as a quarter of an inch *below* the mylo-hyoid ridge. It does *not* in any case extend into the lingual undercut below and behind the second and third molars. It does *not* depend upon this undercut in any way for mechanical retention. In fact, the tissue surface of the disto-lingual flange may fail to make firm contact with the soft tissues below the mylo-hyoid ridge by as much as an eighth of an inch. However, above the mylo-hyoid ridge along the entire lingual side and as far below it as the tissues will tolerate, firm contact with the soft tissue is important.

Thus, we oppose the left lingual side of the mandible to the right forward face of the ramus and external oblique ridge. Duplicate this for the opposite side. When a denture rests between these opposing bony surfaces (and "rests" is the right word; it is not "wedged") it can move in but one direction and that is *upward*. We have thus achieved horizontal stability and this is one of the fundamental discoveries of the Fournet-Tuller Technique. It is even possible to secure complete stability in the absolutely ridgeless mouth, and these now present no terrors for the users of this technique. For *us* there are no more flat lowers.

The third fault to overcome is the absence of good atmospheric seal or suction. This is solved by so muscle moulding the edges that they lie extended to

the zero line, that is, into the exact area where unbroken functional contact between the denture periphery and movable soft tissue is secured without irritation, altered function, or disturbed nutrition. This we call the "zero line" and we will challenge anyone to prove that the denture periphery cannot lie there, when so placed. We can and have exhibited cases as old as five and one-half years, where the mouth is perfectly normal in every respect and yet no one in this audience could remove the denture unless he or the patient deliberately broke the suction. Our motion picture will show several such cases. This we claim as one of our fundamental discoveries.

The fourth failure factor is automatically overcome, when by muscle moulding the lingual *periphery*, we find the point at which *continuous* contact can be maintained with the floor of the mouth regardless of the position of the mylo-hyoid muscle or the tongue. Whenever this point is found the higher the patient raises the tongue or protrudes it the more impossible it becomes to raise the denture, which, as you know, is exactly the reverse of what usually occurs. For explanatory purposes the mylo-hyoid muscle may be assumed to have three positions. When the tongue is raised to its extreme height or forcibly thrust forward out of the mouth it lifts the mylo-hyoid to its extreme high position. When the tongue is lowered to the point where it is almost swallowed the mylo-hyoid is in low position. When the tongue tip lies on or against the incisal edge of the lower incisors the mylo-hyoid is in mid-position. We thus divide the positions into high, mid, and low, and we are able to so shape the lingual periphery that as far as we are able to know it can maintain continuous contact through all these positions without irritation, speech impediment, or disturbed nutrition. This, then, is still another of our fundamental

discoveries in use in the Fournet-Tuller Technique.

The fifth fault is overcome by *abandoning* all manual delineation of denture edges and their sculpturing with tools, substituting therefore accurate muscle moulding to nature's exact physiologic tolerance, now better understood than heretofore.

THE TECHNICAL PROCEDURE

The first thing to do is to carefully explore the mouth with the fingers, and what a surprise awaits you regarding how little you know of the variations in both bony and muscular anatomy. After you have done this a large number of times it will be as revealing as the Braille system is to the blind, for it tells you in advance what you may expect to procure in the impression. Failure to make a digital examination or failure to interpret the findings correctly has many times led us into attempting the impossible because our impressions are as variable in configuration as any other kind and we can only convey to you the general outlines of their form.

Your digital examination should tell you whether the ridge is sharp, round, flat, or concave.

Ramus—Obtuse or right angle to body of jaw, external oblique line well defined or not.

Mylo-hyoid Ridge—Sharp or round.

Floor of Mouth—Taut or loose and degree of compressibility in bicuspid region.

Muscular attachments—Normal or abnormal in position, tension in muscles, degree to which buccinator can be displaced in buccal pouch, attachment of lingual frenum—high or low and how long.

Mucous Membrane—Tender or tough, loose or taut.

Tongue—Tied or normal and patient's control of it.

Next secure a suitable tray in which to make a preliminary impression. We have finally succeeded in getting some trays on the market that need no modifying. These are made up in three sizes and will cover practically all cases. Without a properly designed tray it is very difficult to secure a good preliminary impression. Where an ordinary stock tray must be used the S. S. White trays No. 101, 103, 105, will serve if the disto-buccal flange is bent outward and the heel bent upward. But in that case the compound must be forced upward and backward with the fingers and held until hard, a very difficult procedure. Once you have tried it you will see the advantage of a tray properly designed to carry the compound where it must go and hold it there. Select as large a tray as can be accommodated by the case and fill it with at least two cakes of softened S. S. White black tray compound. This particular compound is used because it is high fusing and very tough, and while excellent for the preliminary impression it is not sufficiently plastic to be used for the final one.

The lips should be greased and the tray, filled with not too soft compound, inserted sideways and when straightened to proper position in the mouth it is carried to place with firm pressure seating the front first and the heels last. Remove it from the mouth after it is fairly firm but do not chill it. This permits the compound to bend enough to release it from the major undercuts. Undercuts not eliminated in this manner should be removed with a sharp knife. The novice may have to reinsert the impression many times but the expert can often get all that is needed on the first try. The preliminary impression should show a well outlined, external, oblique ridge, the forward face of the ramus, the pear-shaped fleshy formation, a well outlined mylo-hyoid ridge and as far below it as compound will go, also the top of

the alveolar ridge. Finally it should give evidence that the yielding tissue has been completely displaced all around. This preliminary impression is intended to give a complete counterpart of the *bone*, disguised by as little soft tissue as possible, over as wide an area as possible. Tough, high fusing compound is used to force all yielding soft tissue out of the way, especially that covering the external, oblique ridge. Firm contact is necessary here.

After using a knife to remove any parts still projecting into undercuts, or impinging upon a sharp mylo-hyoid ridge, this impression is poured in plaster, and upon it a tray of vulcanite is made, with a projecting undercut knob on top, in the median line, to act as a handle. The outline of this tray is first drawn on the plaster with a pencil. This preliminary outline should include, on the buccal, at least three millimeters over and parallel to the external oblique ridge as far forward as this can be followed and two millimeters beyond the visible muscular attachments in other parts. Lingually it should go to the floor of the mouth as indicated by the impression. At the heels it extends above the pear-shaped body, and a half inch above the body of the mandible across the retro-molar fossa right to and over the external oblique ridge. The distal outline should be at about an angle of ninety degrees to the body of the mandible. It is then scratched deeply into the plaster with a scribe and your laboratory instructed never to trim the vulcanite inside that line.

The *final* outline of the vulcanized tray is made by the cut and try method in the mouth itself and its importance may be judged by the trouble and time taken to make and trim it. Without this carefully trimmed and accurate fitting vulcanite tray a good final impression cannot be procured. All our efforts to shorten the procedure have resulted in failure.

Before beginning to trim the vulcanite tray, digital examination of the mouth should again be made. The thickness, strength, and flexibility of the mylo-hyoid muscle should be judged. The sharpness of the mylo-hyoid ridge should be determined and allowance made for it by trimming the preliminary impression along that line so that the vulcanite tray will not impinge upon it when made. The delineation of the external oblique ridge should be determined so that you will not find yourself feeling for something that is not evident. The character of the buccinator muscle and the extent to which it may probably be safely and comfortably displaced should be determined. You will also be interested in the size of the tongue and the extent of its control by the patient.

With these points in mind, your own personal trimming of the vulcanite tray begins, producing a tray differing radically from most lower trays. The disto-buccal corner is not cut off at forty-five degrees but the distal edge runs straight across at ninety degrees and the corner is somewhat rounded. Failure to preserve sufficient disto-buccal angle on the tray will result in failure. The disto-buccal angle should just slip beneath the fold in the buccinator muscle as it crosses the mandible to its distal attachment on the raphe. The height of the heels may be lowered if necessary but not the angle at which they meet the body of the tray. All edges are now carefully smoothed and rounded with a scraper so that the mouth will not be abraded by the rough tray.

It is carried into the mouth and lightly held down with the fingers of one hand and again a process of digital examination with the other hand, determines the degree of possible extension over the external oblique ridge which it must accurately parallel as far forward as the distal border of the first molar from which point forward it may be abruptly

trimmed to allow freedom for muscular movement. The novice had perhaps better trim the disto-buccal margin of the tray to exactly line up with the ridge. Anteriorly it is trimmed until the lip will not lift it. Disto-lingually the edge is trimmed until it is not displaced by thrusting the tongue out of the mouth. Next the area of the lingual edge opposite to second and first molars is trimmed to permit the tongue to be thrust into each cheek without raising the tray while lightly held down with the fingers. The depth of lingual edge is often greatest in the bicuspid region and may be considered correct when the lightly held in tray is not lifted when the tongue is placed against the roof of the open mouth. In the region of the frenum linguae the tray must be trimmed to give complete and entire freedom from displacement by any movement of the tongue. The shape and height of the heels may be judged by whether the tray is displaced when lightly held down and the mouth widely opened but it is better to take a chance on a little more heel than a little less. The tray should now exhibit complete horizontal stability *without suction*. If there is suction the tray edges need more trimming wherever they are still over-extended but the tray is usually properly trimmed when it is one or two millimeters inside the zero line, and when light finger pressure will hold it down against all tongue, cheek, and lip movements, and it has no suction when lifted. All edges must now be made round and smooth. We are now ready for the final impression. In this instance we find the Ransom and Randolph-Dresch impression compound to be the material of choice. The preliminary impression gave us the configuration of the bony foundation. The final impression is to give us the most delicate markings of the soft tissues *without* displacement and register perfect muscle moulding of the

periphery. No tissue displacement is wanted in the final impression.

The dry tray is coated inside with melted dry compound after which a roll of water softened compound is applied. This must form a layer thick enough to keep the tray from contacting the tissues in order to get some automatic relief. Wet hands are necessary to handle this material and the lips should be greased. The compound is spread to an even thickness all around on the tray, then inserted in the mouth and gently forced down and backward with even pressure. This is quickly removed without chilling and examined to be sure everything is centered. If not, the compound is again heated, slightly remoulded with the wet fingers, and reinserted and again forced gently downward and backward. It is again removed without cooling and examined to see that it is centered, that the tray does not show through anywhere, and that all tray edges are covered with surplus compound; if not, the process must be repeated until this result is obtained.

The third time the compound is water heated and carried to the mouth, well seated, and while held in position with the fingers the patient is instructed to forcibly protrude the tongue as far as possible and also touch its tip to the roof of the open mouth. The impression is this time chilled with ice water and removed. It should show the disto-lingual and mid-lingual borders either folded upon themselves or compressed. In the lingual frenum region it should show fair muscle moulding. If all these things are not evident you may be sure your lingual border is too short in some places and must be lengthened later, on the second time around.

We now move to the disto-buccal border, one side at a time. Here we soften the edge of surplus compound with a mouth blow torch, carry it back into

the mouth and while holding the impression down with one hand, use the other hand, to forcibly draw the cheek upward and inward over the disto-buccal tray edge, thus forcing the surplus compound over onto the top of the tray, and muscle moulding its edge. Chill. If not satisfied, repeat. Duplicate on the opposite side.

Next move forward into the buccal bicuspid area and soften that edge, carry into the mouth, hold the tray down firmly, and draw upward and inward, the cheek and lip, moving them backward and forward at the same time. Chill. This should effectually muscle mould this periphery. If not satisfied, repeat. Do likewise on the opposite side of the mouth. In the lip region muscle mould in the same manner.

We next move back to the lingual edge for remoulding and perfecting the atmospheric seal. The first procedure is to dry heat the disto-lingual border, one side at a time, right up to the heel, and while holding it down firmly with the fingers remould it by thrusting the tongue as far out of the mouth as possible. Chill. Moulding in this area is accomplished by the palato-glossus and the free border of the mylo-hyoid muscles.

Next dry heat the lingual border in the second and first molar region, one side at a time, replace in the mouth, hold down firmly and have patient thrust the tongue into the cheek on the side opposite to the one heated. Duplicate on the other side. Repeat as necessary. This takes care of the border when it contacts the highest and thickest part of the mylo-hyoid muscle attachment, and the sub-maxillary gland. Next, dry heat the edge in the molar-bicuspid region and while holding the impression down, the tongue tip is raised to touch the roof of the open mouth. Chill. Repeat these as necessary. Failure to have evident fold-

ing or compression of the disto-lingual and mid-lingual borders shows an absence of contact with the floor of the mouth as controlled by the palato-glossus and mylo-hyoid muscles and will result in loss of suction in low tongue positions and the mylo-hyoid will instantly return to the role of denture *ejector*. When found necessary the edge may be lengthened by the aid of the tracing stick and remoulded.

We now move into the incisor-cuspid region. That lingual border is dry heated, impression inserted, held down, and the tongue forcibly projected from the mouth and moved from one lip corner to the other to provide ample room in the moulded edge for unobstructed movement of the frenum linguae. Chill. In the event of loss of suction in this area the edge may have to be lengthened by additions to it with a tracing stick and remoulding.

Lastly, the heels themselves are moulded by heating both heels at the same time, inserting in the mouth, and letting the patient close the jaws as far as possible and then while holding the tray down with the fingers, move the mandible into lateral occlusion on both sides a number of times. This will give the heels a very definite shape and the disto-buccal angle should just slip under the transverse fold of the buccinator as it crosses the mandible to its distal attachment on the raphe.

The impression should now have thick, rounded, smooth edges everywhere and when this is not the case they must be thickened and remoulded. A sharp edge will spell failure. Chill the whole impression in a bowl of ice water and return it to the mouth and test for suction with the tongue at high position or raised against the roof of the mouth. It should be impossible to lift the impression. Lower the tongue to mid position and it should still be impossible to lift the

impression. Lower the tongue to low position and it should also be impossible to disturb the impression. If in any of these positions suction is lost it may be regained by tracing compound on the lingual border where contact is lost and remoulding. Sometimes the leak is on the disto-buccal or buccal border which will require the same treatment. As a final measure the impression is dried and hot carding wax is lightly painted with a small camel's hair brush upon the disto-buccal, distal, and lingual borders, both to give these a very smooth, round, thick edge and to give just a touch of added compression in these areas to perfect the seal. It should be definitely understood that over-compression continuously maintained at any point will result in pressure atrophy and we, therefore, wish additional compression to be only a touch.

The impression is replaced in the mouth without holding it down and the patient instructed to make every possible movement with the tongue, which should be accomplished without disturbing the impression. In all impression testing, care should be exercised to not hold the lip away from the impression or suction may be lost on the anterior border. Many cases require lip contact in this region to maintain an atmospheric seal. Now, grasp the tray handle in your fingers and you should be able to shake the patient's head vigorously without dislodging the impression. Neither a backward push, nor a forward pull, nor an effort at side tipping should displace it. In fact, it should seem almost to be a grown-in part of the patient.

From the finished impression a stone cast is poured which is carefully made to include the painstakingly formed edges of the impression, because the finished denture must have several very important features and all edges must duplicate those of the impression and must be round, thick, and polished very smooth,

particularly the disto-buccal border. The disto-buccal flange, which is totally absent on most lower dentures, should be dished out and thinned down on the upper side, except on the edge, to provide room for the thickening of the buccinator muscle when it contracts in mastication. Remember this flange lies beneath the belly of the buccinator in a space known as the buccal fold and it is not very roomy. If the mylo-hyoid ridge is sharp, relief may be accomplished by deepening the groove representing the ridge on the finished denture with a large, round bur passed up and down to widen and deepen it a little.

The teeth must be set so as to open the jaws enough to permit the high, but not thick, denture heels to function freely and this sometimes requires cutting away the distal half of the upper second molar or abandoning it altogether. However, we find that whenever the proper facial profile is restored as determined by the known rules or definitely measured by the S. S. White bite gauge there is always sufficient room for free function. The heels of the upper denture should also be carefully made as thin as possible.

Do not be discouraged by your first or second failures. We have had many more than that. Your final impression starts with only a mechanically stable tray with no suction, and this is always a starting point to which you can return. If you wind up with no suction dig out all compound and start over and you will find it easier and shorter than trying to revamp a spoiled impression. Modeling compound is always correctable, but it requires experience that you will only acquire with time and practice.

Do not attempt to whittle, file or scrape the edge of a denture to conform to the soft tissue. It cannot be accurately done and is one of the reasons why lower dentures have been failures. The edge must be formed in the impression

and precious little can be done afterwards. Beginners should not try to reheat, with the blow torch, too large an area at one time. One linear inch of modeling compound is about all that can be comfortably and accurately handled.

Failure in normal cases is generally attributable to the flange being too short on the lingual side on either side of the frenum into the bicuspid area, or to insufficient extension up the face of the ramus, or to inexact approximation of the external oblique ridge. Apply the tracing stick alternately to these edges and muscle-mould to establish more perfect suction. All edges must be round, smooth, and thick. Again we say, "Thin knife edges cannot be used." This applies with emphasis to the finished denture.

Difficult cases include patients who have rami with an angle more obtuse than ninety degrees, those with mylohyoid muscles which are so flabby and loose that they throw the sub-maxillary glands over onto the ridges and give an excessive range of movement to the floor of the mouth, sometimes preventing securing an atmospheric seal in the low tongue position. Then there are those with too short a frenum linguae, which greatly restricts the tongue tip. Surgery is needed here. Mouths that are covered by a very loosely attached membrane, not necessarily flabby but similar to the skin on the back of one's hand, are always difficult cases in which to stabilize any denture. Because while your suction may be perfect the rising plate by this very suction lifts the loose membrane with it and horizontal stability is nearly lost. Although the results in such cases are not ideal, they are good, and better than those obtainable with many other techniques.

CLAIMS OF ORIGINAL DISCOVERY

The following are claims of original discovery and are basic factors for success

with our technique.

1. The establishment of the pre-eminence of the principle of horizontal immobility of the base as a *necessary* pre-requisite to a successful atmospheric seal. Any movement of the base will break the atmospheric seal and destroy maximum stability.

2. The discovery and use of ample bony boundaries in all cases to stop all movement of the lower denture, except in an upward direction.

3. The classification of the three positions of the floor of the mouth and of six tongue positions to aid in muscle moulding of the lingual periphery.

4. The inclusion of a larger area of the mandibular surface than was ever successfully and comfortably covered before.

5. The perfection of a method for securing a physiologic atmospheric seal sufficient to make dislodgment of the denture practically impossible.

6. The abandonment of the time honoured practice of manual delineation of the periphery and the substitution therefore of scientific muscle moulding of the periphery.

7. The delineation of the external oblique ridge for ten millimeters or one-half inch up the face of the ramus as the definite landmark upon which to establish the disto-buccal border of the muscle moulded denture.

8. The prevention of abraded membranes by establishing complete immobility together with correct muscle moulding of the periphery into round, smooth edges, a combination which eliminates frictional chafing.

9. The maintenance of physiologic stimulation to foundation tissues by complete stabilization of the denture.

We can find no record where anyone has laid down the same definite outlines for a lower denture and could tell you exactly why they were so laid and what

result was accomplished thereby. Nor has anyone analyzed the movements of the Mylo-hyoid muscle and found use for each of its three positions to help hold the denture in position; some have tamed it for use in only one position, but have never mastered all its positions. No one has definitely outlined the exactly paralleled external oblique ridge as the essential outline of the disto-buccal border and developed means of preserving that relation.

No one has climbed the anterior face of the ramus itself for a definite purpose and has been able to stay there and know why it was essential to do so. Most of those who approached it did so for the purpose of securing atmospheric seal. None knew it was to establish horizontal stability or ever discovered it could be secured in that way. None ever found a way to oppose the ramus with a sufficient area of the opposite lingual body of the mandible to lock the denture in a position of complete mechanical stability without irritation.

Of course, many of these things were occasionally accidentally accomplished, but no one before recognized their complete or combined significance and preserved them for permanent use. They were either overdone (over extended) or underdone (whittled away). We claim to have recognized the true significance

of each mandibular area and have developed a means to stay there without irritation or disturbed nutrition. All possible combined areas are thus used to produce a stable denture. We also claim the creation of the term or name Horizontal Stability.

Of those who claim to have used and abandoned this method twenty years ago, we want to inquire, "Why?" Not one wrote about it or recognized the fundamental principle of horizontal stability as a pre-requisite to success. They had only the most indefinite ideas as to marginal boundaries and they universally fell, more or less, into the error of over extension through thinking that the secret of retention lay in atmospheric seal only.

Do not let anyone tell you that completely stabilizing a lower denture is impossible. It is being done every day, not only by ourselves, but by many men whom we have taught in our post-graduate classes.

The fact that one of these dentures has been worn for a period of six years and still retains its *maximum* retention is in itself revolutionary. We, therefore, feel justified in asserting that we have presented new, original, and scientific principles in efficient full denture prosthesis.
729 Maison Blanche Bldg.,
921 Canal Street.

Most young men believe that success comes from an inspiration, from a single brilliant effort, and few can be made to realize that what really brings success is steady, unremitting, and intelligent work.

Somewhere in the past, long ago, the idea got out that hard work kills. Very seldom is this true. Where men break down from overwork, it is most commonly due to a lack of properly ordering their lives, and to a neglect of the ordinary conditions of physical health. Work, when conscientiously pursued, is a pleasure, and relieves enervation, while it stimulates the elimination of toxæmia.

Constant useful occupation is wholesome for both the body and the mind. Someone has said that the human heart is like a millstone: If you put wheat under it, it grinds it into flour; if you do not put wheat under it, it grinds on, but then it grinds itself away.—Arthur Vos, M.D., in "Vigorous Health."

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "editorial office, 314 Somerset Building, Winnipeg.

Handling of Children in the Dental Office

by WALTER C. McBRIDE, D.D.S., Detroit, Michigan.

(Condensed from Journal of Michigan State Dental Society)

CHILDREN'S Dentistry is growing up and some day 'ere long it will prove to be the greatest offspring of dental science.

I am inspired with the result of painstaking effort in the interest of making children tractable patients.

In the matter of approach, I can designate no one thing of greater importance than calling the child by his name. Don't forget the child's name.

The last thing I wish to know before a child is ushered in is his name. At birth he was tagged with a certain cognomen by which he is to be known through life. Common courtesy, when addressing him, intimates that he should be so called. The response is immediate and an attitude of friendship is generated. Somehow it brings to both child and parent a glow of something akin to pride or ego, either of which proves excellent strategy in the management of both child and parent.

Speak to the child in a spirit of equality—friend to friend. Most children respond naturally to a frank, friendly, courteous greeting, which indicates that you recognize in him what he has long known himself to be—a normal, self-important fellow human being. Frank,

genuine sympathy, expressed by action and word, does much to soften and remove resentment toward one who must inflict pain.

Certainly do not patronize. Keep the conversation on his plane of interest, but without gushing over everything he says. Children sense this as much as adults, if laid on too thick.

Flattery is cheap and of inestimable value, but it must be handled with caution. Children of four or five are particularly gullible, but on the other hand a boy of, say ten years, if told something he knows to be absolutely false, will present something akin to disgust. A great display of comradeship can be expressed to a boy or girl of 8-10 years, by the remark, made in a moment of relaxation, "Can you think of anything that hurts worse than this?"

Children respond slowly to requests or orders. Give them time. They have not the ability to assimilate and respond immediately.

Certainly children do not respond to a multiplicity of orders. I do not permit my assistant giving orders while I am in the room, and I try, as best I can, to damper the ardour of the co-operating parent who insists upon helping me with

patient instruction. I refer to the co-operative type of parent who repeats every verbal order I give a child. For instance, I may say "Open," and the parent will say, "Open, John"; I may say "Spit," and the parent immediately interjects, "Spit, John," just as if the child could not understand orders given by a foreign tongue. A pediatrician of note has a sign on his wall, bearing the notation, "Please do not talk to the child while I am examining him." When the parent begins to counsel the child he points to the sign, feeling this gesture is less personal and less vexing than to say it verbally.

Most assuredly a lucid presentation of the experiences to which you are about to subject a new and trusting patient will serve one in good stead. It is not troublesome to me to say to a child, at the initial appointment, "This is a mirror; this is to blow the water off the teeth, it has air in it; this is an instrument with which to feel the tooth." It is not troublesome to me to make an analogy between decay in an apple and decay in a tooth, or to demonstrate the functioning of a bur on the nail and on an anterior tooth before proceeding to prepare a cavity, nor is it a task for me to mention the use of and placement of the cotton rolls in isolating a tooth, the purpose and placement of the matrix, the packing of the filling, and finally the carving of it.

Finally, in the management of the patient, there must not be overlooked the inherent value in the physical approach of the operator; his look, his voice, his touch, his methodical approach and his appearance of assurance. One's assurance is exceptionally valuable. Any indecision on the part of the operator, whether it be a hesitant look, a voice tremor, a nervousness of the hands, or a general lack of methodical coherence is readily recognized by a child, and it brings out, accordingly, a liberal show of protest.

Timing is becoming a relatively over-worked word, yet it has its application here. A child should be permitted the privilege of resistance, or remonstrance before being checked, but only so much. Particularly is this true where the task at hand provides no punishment. On the other hand, where pain is evident the curtailment of remonstrance must be tactfully delayed and tactfully done. Perhaps the worst thing an operator can do, along these lines, is to say it doesn't hurt when it does.

Technically any filling found missing within a period of a month or two, to say the least, should I think be replaced "on the house." If a much greater time has elapsed, then one might justifiably attribute it to faulty dentition or progressive caries. To repeat, if it is an operative error, it certainly seems wise to acknowledge it rather than bluff one's way with the possibility of loss of the patient; and do it graciously. Most assuredly it appears the acme of ill judgment, when dealing with the public, to do anything with, or show any traces of, resentment.

Even so simple a fact of having the parent in the operating room, or absent, is one of economic importance. Most parents wish to see what is going on, what is being done for their child and under what measure of remonstrance or acceptance. If the child's behaviour is such that one might invite the parents in, there is some merit in having them present. While this may be time consuming—this added entertainment of the parent—on the part of the operator, it is costly only to the parent who is paying the bill. This thought precludes the idea that one is charging on an hourly basis instead of the customary fee-per-operation.

If the parent does not accompany the child to the operating room, more can be accomplished for the child, thus reducing the eventual cost. But the fly in the ointment is that it is costly to the operator,

on the score that he must contact the parent between appointments. With the many pleasantries to exchange and with the story of what has been done to-day for John, a great deal of time is consumed. This is particularly true if one encounters a verbose parent. Thus it is costly to the operator. Ten minutes wasted idly between a daily appointment schedule of say ten patients measurably impairs a day's possibilities.

So-called social data—notations made upon the record cards of the patient pertaining to the individual's social existence—is an old trick of good salesmanship in business. Business men have long recognized the importance of manoeuvring their sales argumentation around or through a maze of social interests. I refer to notations on records bearing witness of new babies, new homes, new interests, promotions, accom-

plishments, vacations, etc., incident to the family in general. Even a casual reference to the "old man" may strike a responsive chord at times, these to be used when the patient returns again, six months or a year or two hence. Folks, you and I alike, have so much ego and enjoy so much the inflation of it that it seems an opportunity much too pregnant with possibilities to pass by.

These, as well as many others, not to mention charges for examinations, general office call charges, estimates of costs, methods of payment, broken and cancelled appointments, are all factors which when ironed out satisfactorily materially involve one's getting along. Good business methods will help so much directly, and many times will offset one's operative shortcomings. Good business sense is none other than knowing where and when to apply the proper stress.

Practice Building

Fear is at the basis of letting many services escape without a fee. Most people expect to pay and £1.1s. for four bite wing films is within the province of most. It is the quickest fee I can earn, and has the greatest work-creating properties. Bosworth has brought many a guinea since I read his suggestion regarding vulcanite repairs. We all know the patients who have a dinner party to attend or, worse still, are to be married in an hour's time. Alack! they have broken their denture. They are in a cold perspiration and feverishly rush into your rooms. "Can it be vulcanized in 20 minutes?" It is at this psychological moment you suggest a second denture to prevent a recurrent predicament. Some say "Yes."—John H. Wilson, B.D.S., D.D.Sc., Dental Journal of Australia.

The attractiveness of any room is increased by a "touch of nature" in the shape of a bowl of pleasant smelling flowers. Although the desire for this form of decoration is universal, the actual effect upon the air may be unknown. Under the influence of daylight the plants absorb the poisonous carbonic acid gas from the air, replacing it with oxygen. But at night, particularly where bedrooms are concerned, plants should be removed for it is then that they reverse the process and give off what they have previously consumed.—W. L. Heatherill in "New Health."

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM QUEBEC:

I would appreciate a reply to the question below and at the same time reference to literature on the subject:

Is the unfavourable attitude towards Ionization due to the method itself failing in its purpose?—*Harold Hersch, Montreal.*

REPLY FROM ALBERTA:

Those who were practising dentistry during the "gay nineties" will remember that electricity was then considered a big factor in the treatment of pathologic conditions of the mouth. We had electrotherapy, electrolysis, cataphoresis and electric treatments under various names. There was hardly a dental magazine which did not carry at least one article on the subject and it was nearly always a "head-liner" at conventions and society meetings. Soon after the beginning of the present century, however, there was a gradual dropping off in these activities and by the end of the second decade they seem to have been almost forgotten.

This condition I believe was not entirely due to any dissatisfaction with results. In dental literature these methods seem to have been almost universally recommended. In the *British Dental Journal* 1912, page 961—under a new name "Ionic Treatment" and as late as 1923 in the *Dental Cosmos*, page 732, were articles extolling the virtues of "Ionization" in connection with the treatment

of alveolar abscesses and pyorrhoea. I find little in dental literature of condemnation, so we must look for other causes of its apparent neglect.

The diminution of interest seems to be coincident with the falling off in the treatment of abscessed teeth, and I believe herein lies one of the chief reasons. Such pathologic conditions were cured by extraction, and pyorrhoea was treated (although rarely cured) by the use of emetine, autogenous vaccines and more or less radical instrumentation. These subjects then became *etre en vogue*, and this, together with the changed attitude towards the pulpless tooth, and not the failure of ionization, I believe, gives us the answer to the question: "Is the unfavourable attitude towards ionization due to the method itself failing in its purpose?"—*H. E. Bulyea, Edmonton.*

REPLY FROM GEORGIA, U.S.A.:

The unfavourable attitude toward ionization (electro-sterilization) cannot be due to the failure of the method. Its efficiency in destroying periapical infection has been fully established. Its use, however, involves an accurate technique.

References on this subject are Dr. J. L. T. Appleton, Jr., "Experimental and Applied Studies in Electro-Sterilization," *Dental Cosmos*, February, March, April 1931; Harry B. Johnston, D.D.S., *Journal A.D.A.*, page 649, Volume of 1922.

I hope that this will sufficiently answer your inquirer. If not, I can give numerous other references in Journals of the United States of my own and other papers. The electro-sterilization of apical infection is a complete success in approximately 80 per cent of the cases when used in a proper manner.—*Harry B. Johnston, Atlanta.*

REPLY FROM ONTARIO:

The factors entering into the use of the Ionization or Electro-Sterilization method for Root-Canal Therapy may be summed up as follows: The equipment is rather costly, its application exacting and time consuming. The results, as

recorded in dental literature, are satisfactory, as the number of treatments necessary to secure a negative smear and culture are apparently less than with other methods.

Journal of the American Dental Association, September 1934, by Louis I. Grossman, D.D.S.

Dental Cosmos, 1933, pages 196 and 829, by Louis I. Grossman, D.D.S.

Dental Cosmos, April 1932, by Louis I. Grossman, D.D.S., and Herman Prinz, A.M., D.D.S., M.D., D.S.C.

Dental Cosmos, April 1932, by Raymond Werther, D.D.S.

Dental Cosmos, April 1928, by Lester Cahn, D.D.S.

—*Louis F. Krueger, Toronto*

Conventions

71ST ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION,
ROYAL YORK HOTEL, TORONTO, MAY 16-18.

Dentists from the United States and from the other provinces of
Canada will be welcomed as guests.

SASKATCHEWAN DENTAL ASSOCIATION, IN REGINA, EARLY IN JUNE.

CANADIAN DENTAL ASSOCIATION (DELEGATES' MEETING),
VANCOUVER, JUNE 30-JULY 2.

PACIFIC COAST DENTAL CONFERENCE, VANCOUVER, JULY 4-8.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.
K. C. CAMPBELL, SECRETARY, 88 PORTLAND PLACE, LONDON, W.1, ENGLAND.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

"If you believe a year from to-day what you believe to-day the world has out-distanced you."—*William B. Stout.*

The Forum

• GENERAL ANAESTHESIA IN DENTISTRY

By W. S. McConnell, M.B., B.S., London, England
(Condensed from the *British Medical Journal*,
September 18, 1937)

IN PRIVATE practice I use the simplest type of apparatus: cylinders of nitrous oxide and oxygen controlled by foot-keys, a rubber double bag, a small mixing chamber connected to the nose-piece, and a mouth inhaler.

ANAESTHESIA FOR CHILDREN

For the small child of three or four years of age ethyl chloride given on an open mask is satisfactory, because with nitrous oxide only a narrow margin divides too light an anaesthesia with associated cries and voluntary movements from partial asphyxia with cyanosis and jactitation.

Ethyl chloride may be given on the corner of the upturned bib, and should the child move the head there is no difficulty in following such movements with the napkin.

Whatever method is chosen much tact and gentle handling will be necessary. My rule is to try persuasion for ten minutes: if this fails the parent is asked to decide whether force shall be used or less drastic measures, such as the production of sleep by drugs in bed at home. Every step of the procedure should be explained before the administration in fairness to the child and to the dental surgeon, for if any deception is practised he may lose the confidence of his small patient.

NECESSARY PRELIMINARIES

The child should be made comfortable in the chair, with the occiput well sup-

ported by the head-rest, helped by cushions, if necessary, in the case of very small children. If the legs are dangling uncomfortably over the edge of the chair and the child appears likely to slide off he should be made to sit tailor-wise with the legs crossed on the seat. The position of the teeth to be extracted should be noted, and also whether a Mason's gag will be required to change to the other side of the mouth. An attempt should be made to insert a dental prop before the induction of anaesthesia. Explain to the child that all good children go to sleep with their mouths closed, but that on this one occasion it is necessary to have it open; should persuasion fail the anaesthetic is started, but it is important not to allow the child to become completely anaesthetized before a Mason's gag is inserted.

RESPIRATION

The one safe guide to the progress of anaesthesia with ethyl chloride is the respiration. It is important to hear or see every breath from the moment of induction, and if from any cause the respiratory movements cease the drug should be withheld. In the early stages of induction the child may hold its breath; at such times the spray of ethyl chloride is stopped, the mask, however, remaining in place. When respiration begins once more further quantities of ethyl chloride are given until the breathing becomes automatic. If ethyl chloride is administered only in the presence of regular respiration possible causes of anxiety may be avoided. It should be apparent if respiration ceases that the cause is breath-holding during the in-

duction, obstruction due to the tongue, spasm of the glottis at a later stage, or, finally, gross overdosage.

Spontaneous movements of the child's limbs are disregarded, and no reliance is placed on the presence or absence of stertor, the size of the pupils, or the direction of the squirt. How much deeper the anaesthesia is carried after automatic breathing is established depends upon the amount of work to be done, but in no case should it be pushed until there is a snatch in the respiration, or until the breathing becomes shallow. No obstruction of the airway can be tolerated during ethyl-chloride anaesthesia, and in most cases the jaw must be held forward by a very definite effort on the part of the anaesthetist, particularly when lower molar teeth are being extracted and the fingers of the dental surgeon tend to depress the tongue.

During induction with a gentle stream of nitrous oxide blown from a distance of an inch or so from the nose the attention of the child may be distracted by a suitable story. This should be continued during the moments of awakening, and few children detect any loss of continuity. Most children can be persuaded to breathe through the nose; if not, then a mouth-piece through which nitrous oxide is blown should be employed in preference to covering the mouth with a hand, for it is not difficult to asphyxiate a child by such obstruction to the respiration.

A moistened marine sponge to which a length of tape has been securely fastened is always inserted as a throat pack before any extraction, as deciduous teeth readily slip out of the forceps. It is placed so as not to carry the tongue back but to form a diaphragm at the entrance to the fauces. If pushed too far back it may cause the patient to retch and displace the dental prop. If with nitrous oxide and air the procedure threatens to be prolonged added oxygen

makes for a smoother and more tranquil anaesthesia, but with the disadvantage of possible nausea afterwards. No attempt is made to work with a definite percentage of nitrous oxide and oxygen, the mixture being varied to meet the requirements of the patient.

ANAESTHESIA FOR ADULTS

The patient should sit upright in the chair, with the head-rest supporting the neck and occiput. Saliva collecting in the mouth during the induction is then less likely to trickle to the back of the throat and cause coughing or retching, and the tongue, even if depressed by the fingers of the dental surgeon, is less likely to obstruct respiration. The legs should rest naturally and not be wedged against the foot-rest. The anaesthetist should be shown the teeth to be extracted, and should note the presence or absence of such fragile appliances as gold bridges or porcelain crowns, so that he may avoid resting a Mason's gag on them. A mouth prop is inserted by the dental surgeon. Induction is slow, and the metal nose-piece is held at a distance while nitrous oxide is allowed to stream towards the nose. The valve on the nose-piece should not be closed during the induction, as the expiratory difficulty so produced may cause the patient to breathe through the mouth. In cases of partial nasal obstruction or persistent mouth breathing a mouth-piece becomes essential, but the insertion of the throat pack may restore nasal breathing. The guide to anaesthesia is the change to automatic respiration. The dental surgeon is invited to begin the extractions, not by the spoken word, but by a sign or gesture. Many patients describe how they have heard an anaesthetist say "Right you are" or "She's ready now."

Assisting the dental surgeon during the extractions consists very largely in keeping out of his way. When a right

lower molar tooth is being removed the left arm of the dentist, who will be standing behind the patient, should be allowed to encircle the patient's head; during the extraction of upper central and lateral teeth the nose-piece should be temporarily raised, and while upper molars are being removed the head should be held as still as possible and a finger employed to retract the lower lip and protect it from the pressure of the forceps. A Mason's gag should be inserted by sight, the blades resting on molar teeth and two fingers of the opposite hand clearing the lips as the closed gag is placed between them. The instrument is locked in the open position and held against the cheek by the pressure of an open hand, so that it will follow all the movements of the patient's head. If gripped rigidly by the handles it will rock on the teeth if the head is moved, with possible damage to fillings and inlays. At the end of the extractions the prop and mouth-pack are allowed to remain in position until recovery of consciousness is complete.

DIFFICULT CASES

Two classes of male adults present some difficulty—namely, the alcoholic who fights and struggles when partially anaesthetized with nitrous oxide and the man who struggles before anaesthesia is complete and tears the nose-piece off while he is still conscious. If the extractions are few in number and unlikely to present any difficulty it may be possible to maintain anaesthesia in the first group with nitrous oxide and added air or oxygen. A mouth-piece may be essential, as such patients when struggling breathe very deeply and may change over to mouth breathing without warning. For the second type the only hope is a quick induction, but at the best this will be uncomfortable.

For such cases I have found satisfactory

a small dose of evipan given in the upright position in the dental chair and followed by nasal gas. This method should not be used unless the patient has a friend who can take him home after resting under supervision in the surgery for a period of up to one hour afterwards. Evipan is not employed as a substitute for nitrous oxide or just because the patient "hates gas." It is suitable for the difficult patient with easy teeth, or the easy patient with difficult teeth, but not for the difficult patient with difficult teeth, as the dosage must of necessity be small.

Inquiry is made into the patient's past medical history, the pulse is counted for one minute to exclude irregularities, and the arms are inspected to find a suitable vein. A strap is placed round the pelvis of the patient and well down under the back of the dental chair, since there may be a tendency to slide down. A cushion on the arm-rest enables the forearm to remain comfortably in extension. A rubber tourniquet is applied, the skin cleaned with spirit, and the injection begun. The dental surgeon supports the head and jaw to ensure an airway and inserts a prop before consciousness is lost, maintaining it in position until anaesthesia is complete, since there is a likelihood of its falling out should the patient yawn. At the conclusion of the injection a pad should be placed over the site and the forearm flexed to avoid possible leakage of blood. If no dental prop is used to keep the mouth open during the induction much larger doses of evipan may be required, as some difficulty may be experienced in opening the patient's mouth.

The first sign of the onset of sleep may be seen when 2 c.cm. have been given; half a minute should be allowed to elapse before further quantities of the drug are injected. The object is to give the minimum amount of evipan to produce a short period of anaesthesia. If too

little is given the patient, when stimulated, may become quite uncontrollable; if more than sufficient is given the return to consciousness may be much delayed, and it may be some hours before the patient is fit to leave the surgery. With those addicted to alcohol, or in a highly nervous or apprehensive state, doses up to 5 or 6 c.cm. may be necessary.

The maintenance of an airway in a patient under evipan in the dental chair

is particularly important. Obstruction such as is sometimes seen under nitrous oxide, when of necessity the dentist's fingers depress the tongue, cannot be tolerated. The amount of evipan given should never be enough to depress the respiration in any marked degree. Stimulation of the return of consciousness can be obtained by the inhalation of smelling salts or of carbon dioxide-oxygen mixtures.

GRIN AND BEAR IT

By LICHTY



"That last payment on the car puts us completely out of debt—
we don't owe a thing except the doctor and dentist!"

*Reprint with permission of the 'Winnipeg
Free Press and the United Feature Syndicate.'*



PRINCE EDWARD ISLAND



W. T. Wayne, Charlottetown

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

NOVA SCOTIA



A. W. Faulkner, Halifax

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgecombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

The Craze for Luxuries

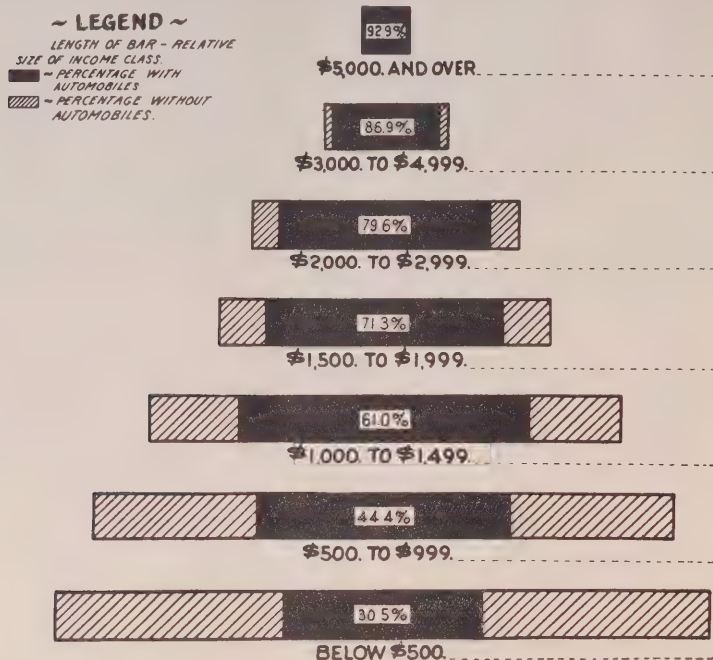
In the past the dental profession has made remarkable advances, not only in the development of an exact technique for the various dental operations, but in its approach to the problems of public health and in the development of professional status. However, no organization or institution can afford to rest on the laurels of past achievement, as standing still leads to stagnation.

We are living in a new age, the age of science, a fast-moving, dramatic age. Dentistry has not recognized and made use of these developments as she might have done, and as the giants of modern industry have done, with the result that people look upon automobiles, radios, etc., as things which cannot be done without, while dental service is sought when one has a toothache which is not relieved by something purchased at the drug store, and even then there is often resentment shown at the paltry fee charged by the dentist.

An eastern business executive recently made an interesting observation regarding the sale of automobiles as a possible business barometer. "That's no business barometer," he said. "People don't regard automobiles as a luxury any more. They are necessities. People will go without food before giving up their car and, if they have the opportunity, even though it means

mortgaging their future salaries or wages, they will buy a new car." In this connection it is interesting to study the following graph:

The diagram below depicts the automobile ownership in 50 United States cities, by families of the various income groups. The figures are drawn



By courtesy of 'Department of Commerce, U.S.A.'

from the Department of Commerce studies on "Consumer use of selected goods and services by income classes," representing samples of the whole family population of each city, totalling approximately a quarter of a million families. It may be further noted that the fifth group (income \$1,000 to \$1,499) included 19.2% of all families, 21.5% of all automobile owners, and 61% of this group owned cars. The sixth group (income \$500 to \$999) included 23.3% of all families, 19.1% of all automobile owners, and 44.4% of this group owned cars. The last group (income below \$500) included 26.5 of all families, 14.9% of all automobile owners, and 30.5% of this group owned cars. Similar statistics are not available in Canada but the situation here is interesting enough.

According to Wm. S. Paley, President of the Columbia Broadcasting System, in 1927 there were 6,500,000 radio homes compared with 25,000,000 in the United States to-day. In addition there are approximately 4,500,000 automobiles with radios and another 4,000,000 homes with extra sets. The

25,000,000 radio homes can be interestingly contrasted to 11,000,000 equipped with telephones, 17,000,000 with automobiles and 21,000,000 with electric light. The national annual radio bill is about \$700,000,000.

"The Standard," a Montreal newspaper, recently published the budget of working girls earning \$12.50 a week. It was interesting to note the allotment for rent, food, shoes, clothes, cosmetics, permanents, etc., but one large item, a real necessity, was \$50 a year for cigarettes, health destroyers, while nothing was allowed for medical and dental care.

When one considers, even casually, the importance of mouth conditions from the standpoint of health as well as appearance, one is appalled at the indifference of the average citizen to the necessity of dental service, placing innumerable unimportant luxuries ahead of that without which life is one long burden.

All of these conditions are influenced greatly by general public opinion, a situation which demands the careful study of each one of us. Is one worthy of being a member of a noble profession who knows more about football, baseball, tennis, hockey and screen stars than he does about the economic, political and spiritual trends in the world to-day? Apathy or ignorance will not be of any help to us in solving these problems. Your duty and mine is plain. We must study these conditions, and so be able to make intelligent decisions quickly, thus placing ourselves in the position where it cannot be said that we have overlooked some of the most important problems facing our profession to-day.

Rowell Commission

Much interest has centred around the proceedings of the Rowell Commission as the conferences have been held in the various provinces of Canada.

One of the functions of this Commission is to gather information relative to health which will assist it in determining and recommending what should be the relative responsibility for health measures as between the Dominion and Provincial Governments. As this is a very vital matter to the dentists of this country the Committee on State Dentistry of the Canadian Dental Association, under the very able leadership of Dr. John S. Lapp of Toronto, has been working very hard on this problem and is preparing a brief to submit to the Commission in April which will include such information and recommendations as will be helpful and interesting to the Commission.

Dr. Lapp has contacted the provincial delegates and the members of his committee in the various provinces and wishes to publicly express his appreciation to all who have helped in the accumulation of the information necessary to compile this brief. It is obvious also that the thanks of the dentists of Canada are due Dr. Lapp and his committee and all those who have assisted in carrying on this work so efficiently.

Further information as to the progress being made will appear in the Journal at a later date.

BOOK REVIEW

Practical Microscopy of the Teeth and Associated Parts—G. A. W. Wellings, M.D.S. B'ham, L.D.S. Edin., Lecturer in Histology and Pathology of the Teeth and Associated Parts in the University of Birmingham; John Tomer Prizeman of the Royal College of Surgeons of England. Cloth, 281 pages. Published by John Bale, Sons and Curnow, Ltd., 83 Great Titchfield Street W.1, London, England. (1938). Price 12/6 net.

This book has been written as a handbook for students, research workers and practitioners and is a compilation drawn from all available sources.

In presenting this work the author has written a concise and very interesting 24-page Introduction outlining the more important

discoveries which have been made in dental histology during the past quarter of a century. Following these are chapters on Fixation and Hardening; Decalcification and Decalcifying Fluids; Section Cutting and Embedding Methods; Stains and Staining; Clearing and Mounting; Preparation of the Calcified Tissues; Enamel; Dentine; The Tooth Pulp; The Tissues of Attachment; Developmental Tissues; Some Recent Developments in Histological Technique; and an appendix dealing with Buffer Action, Hydrogen-ion Concentration and Histological Technique, Alcohols and Methods not already given.

The average dental practitioner undoubtedly should make greater use of the microscope than he does, and to such the reviewer would most heartily commend this splendid treatise on the subject.—M. H. G.

NEWS FROM THE PROVINCES

ONTARIO:

Extramural Lecture-Clinics

Through the co-operation of the Faculty of Dentistry of the University of Toronto and the Board of the Royal College of Dental Surgeons, lectures and clinics on various subjects requested by the local societies are given by members of the Faculty. This is a service which is very much appreciated by the profession and has done much to raise the

standard of dentistry in the province of Ontario. Not only are the latest technical procedures and methods of practice in various branches of dentistry presented, but these lectures create a better understanding between dentists so that the ethics of the dental profession in the Province are on a very high plane.

During this session eleven centres have been visited by the following members of the staff:

Kingston Dental Society, by Dr. J. Duff: "An Impression Technique to Stabilize Denture Bases."

Norfolk County Society, by Dr. F. M. Lott: "The Design and Construction of Partial Dentures," and "Dental Investments and Casting."

North Waterloo Society, by Dean Mason: "Cavity Preparation of Deciduous Teeth," and "Treatment of Fractured Anterior Teeth."

Renfrew County Society, by Dr. F. L. Cole: "The Taking of Impressions of Edentulous Mouths," and "The Taking of Impressions of Semi-Edentulous Mouths."

Brant County Society, by Dr. G. V. Morton: "Developing and Maintaining a Successful Dental Practice."

Kent County Society, by Dr. C. A. Corrigan: "Orthodontia for the General Practitioner."

Simcoe County Society, by Dr. C. A. Corrigan: "Orthodontia for the General Practitioner."

Brant County Society, by Dr. F. L. Cole: "Full Denture Prosthesis," and "How to Overcome Difficulties in Denture Prosthesis."

Durham-Ontario Society, by Dr. I. H. Ante: "Fixed Bridge and Partial Denture Prosthesis."

Peterboro Society, by Dr. R. G. Ellis: "Gold Inlay Technique."

Hamilton Dental Nurses' and Assistants' Association, by Dr. G. V. Morton: "Dental Economics."

Two hundred and nineteen dentists have attended these lectures and demonstrations.

Toronto Academy

February 9 was Past Presidents' and Fraternal Night at the Toronto Academy. Dr. Stuart Crouch was initiated into the order of Past Presidents of the association at a dinner given in their honour at the Carlton Club. The following Past Presidents were present: John A. Bothwell, W. B. Amy, Sydney Woollatt, Jas. McDonald, W. J. Kerr, Frank Martin, E. A. Grant and T. R. Marshall.

At Osler Hall, Dr. Stuart Crouch, immediate Past President of the society, presided. Dr. John Coggan of Ford Hospital, Detroit, gave a very excellent presentation on the manipulation of amalgam in dental restorations. It was splendidly received.

Ladies' Night at the Academy

Toronto Academy of Dentistry Ladies' Night was held in Simpson's Arcadian Court January 27. More than 300 members and guests with their ladies enjoyed this annual party. The arrangements were very complete, thanks to the committee in charge—Dr. Harvey Reid, President; Dr. Lloyd Saunders, Chairman of Committee; Dr. Russell Hoffman, Dr. Ken Harris, Dr. Sydney Milburn, Dr. Flora Cowan, Dr. W. H. Walton-Ball, Dr. Ross Thomas, Dr. W. G. Trelford, Mrs. Lloyd Saunders and Dr. Harvey Bean.

Hamilton and London Dental Societies

Dr. John J. Posner, of New York, addressed the January meetings of the above societies. Dr. Posner has just returned from a year's service with the Medical Corps of the International Brigade in Spain.

In Hamilton, during the afternoon, he illustrated a simplified technique for securing local anaesthesia. In the evening he gave a travelogue of his experiences in Spain, illustrating this with motion pictures.

Dental Nurses

The regular monthly meeting of the Dental Nurses' Alumnae Association was held February 8, at the Women's Union, St. George St., Toronto. Mrs. Percy Waters was the guest speaker of the evening. Her subject was

"Flowers and Their Arrangement." She gave some splendid suggestions and practical ideas for the arranging of flowers in the dental office. It is surprising what a few flowers can do to a reception room, particularly when arranged by expert hands. Final plans were made for the annual bridge, to be held April 12. The mothers were guests at this meeting, and were received by Miss Nan Braidwood, President, and Miss Grace Singer. Refreshments were served at the close of the meeting.

Dr. Frank Martin was the guest of the Ottawa Dental Society on Monday, February 21. He presented a lecture clinic on "Fixed Bridge Construction." The meeting was attended by about 50 dentists. Dr. C. W. Sheridan, President of the society, presided.

Class of 1928

The class of 1928 is holding a reunion during the Ontario Convention next May. As it will possibly be ten years before another is held, the members should not miss this opportunity to get together. Watch this magazine for further notices.

MURRAY ROBB.

Galt Dental Clinic

In 1937, 108 children were treated at the Kiwanis Club Dental Clinic. The executive feels that the work has been very satisfactory and that the field of operations might be extended to take in some of the older children.

Chatham Kinsmen Club

The Kinsmen Club of Chatham has terminated the well-baby clinic which the Club has sponsored for some years in order to expand the dental clinic which it established some months ago.

Dr. John A. Bothwell was guest of the Kent county Dental Society at Chatham on February 16. He presented the Tuller technique of impressions and rebasing. Dentists were present from London, Sarnia, Dresden and Leamington. Dr. C. E. Higley, President of the society, presided over the assembly of 50 dentists,

QUEBEC:

**Child's Death Blamed on
Dental Negligence**

The death of a ten-year-old child from pneumonia was due to the lodging in the child's lung of a piece of broken tooth following extraction, ruled the Superior Court, January 14, in a judgment awarding the child's father damages of \$945.23.—*Montreal Star*.

In Memoriam Resolution

The Executive Committee of the Montreal Dental Nurses' and Assistants' Association records the sense of loss to the club in the passing of its founder, Rachel Ratner, February 2, 1938.

We have lost not only a member who was faithful and active in the advancement of our profession, but a friend whose kindness endeared her to all who knew her. She has not only left an enduring memorial to her life, but an impelling incentive to her associates to rear a suitable superstructure on the foundation she laid so well.

With the sense of loss is mingled deep sympathy for her family.

Resolved, that we, the members of the Montreal Dental Nurses' and Assistants' Association, do cause these resolutions to be spread on the minutes, and be it further

Resolved, that copies be sent to her family, and to the Journal of the Canadian Dental Association.

**Dental Nurses' and Assistants'
Association**

The Montreal Dental Nurses' and Assistants' Association held its Annual Meeting and Banquet at the La Salle Hotel February 4, with Miss Mildred Starr, the President, in the chair.

Following the annual reports of the various committee chairmen, the election for the ensuing year took place with the following results:

Honorary President, Miss Marion MacIver (re-elected); President, Miss Mildred Starr (re-elected); 1st Vice-President, Miss Martha Barber; 2nd Vice-President, Miss Nancy Reid; Recording Secretary, Miss Artis Crowell; Corresponding Secretary, Miss Dorothy Ross; Assistant Secretary, Miss Eve Miron; Treas-

urer, Miss Helena Gill; Clinic, Miss Grace Robinson; Program, Miss Peggy MacMahon; Refreshments, Miss Johnson and Miss S. Lamarre; Membership, Miss Dorothy Arnett; Attendance, Miss Pearl Adams; Reception, Miss Edith Nugent and Miss L. Winters; Publicity, Miss Kay MacIver; Sick, Miss Lilian Fincher; Advisory, Dr. Barr, President of the Montreal Dental Club, Dr. G. Kelly and Dr. Hale.

Miss Mildred Starr was the recipient of a presentation from the members, a token of their appreciation of her endeavours, on behalf of the Association.

NEW BRUNSWICK:

Resolution

At the last meeting of the New Brunswick Dental Association a resolution was adopted making the fees for this province to the Canadian Dental Association \$4.00 per member as soon as the other provinces are prepared to do the same.

NOVA SCOTIA:

Dr. Harry Thomson at Glace Bay

On January 18, Dr. Harry Thomson, field secretary of the Canadian Dental Hygiene Council, gave a public address at Glace Bay, in the interests of the dental health educational program which is being undertaken in Nova Scotia.

BRITISH COLUMBIA:

Pacific Coast Dental Conference

The above Conference meets in Vancouver July 4-8. During the three years which have elapsed since the last meeting of this Conference in Long Beach, California, much progress in dentistry has been made and those well qualified in their respective fields will be present at this meeting with unusually interesting papers and clinics.

This will be the first meeting in Canada and as British Columbia has so much to offer in the way of magnificent natural scenery and the Conference will have so much to offer from a professional standpoint, the dentists of Canada should avail themselves of this unusual opportunity to visit the Pacific Coast in July and profit by this two-fold privilege.

MANITOBA:

Winnipeg Dental Society

The members of the Winnipeg Dental Society, who attended the February meeting of the Society, to hear Dr. Fulton Risdon, Associate Professor of Oral Surgery at the University of Toronto, discuss "Acute and Chronic Infections of the Jaws," were richly repaid for their effort. Dr. Risdon's conversational manner of delivering a paper interspersed with his own brand of dry humour, was a treat which one could ill afford to miss. Dr. Risdon's specific purpose in coming to Winnipeg at this time was to present to the Medical Society several papers connected with his specialty. Dr. Risdon has his F.R.C.S., but the dental profession is proud also to claim him among its ranks.

ALBERTA:

Edmonton Dental Society

The annual banquet and dance of the Edmonton Dental Society was held at the Macdonald Hotel, on February 5. Dentists and their wives from the surrounding districts were invited to this enjoyable annual function.

Collections

Credit should be given to Dr. R. R. McIntyre, of Calgary, President of the Calgary Dental Society, for commencing a study of the business management of collections, and developing a co-operation among the dentists of Calgary for that purpose. It has been interesting to discover that credit has been given to a number of patients whose accounts have turned out to be uncollectable, by as many as four, five, six and, in one case, seven members of the Calgary Dental Society. Losses to Calgary dentists, due to giving credit to people who are well known as bad credit risks by the merchants of the city, were found to have totalled many thousands of dollars in the last few years.

While the dentists of Calgary have willingly given service to a large number of people who were entitled to it, and who were not in a position to pay their accounts, it has been brought to the attention of the members, that a large number of people who have no intention of paying, have been taking advantage of the

bad business methods commonly employed.

Other dental societies might well consider this important subject. A letter to Dr. McIntyre would bring some very interesting information.

Removal

Dr. H. L. Courcier, of Wainwright, Alberta, has moved to Vernon, B.C., where he has taken over Dr. C. W. Corrigan's practice. The many friends of Dr. Corrigan in Western Canada wish him a speedy recovery from his illness.

Dr. Neilson Called East

Dr. W. G. Neilson, of Calgary, was called east owing to the death of his brother, Mr. John M. Neilson, of Brantford and Toronto.

SASKATCHEWAN:

Saskatoon Dental Clinic

Continuing its beneficial activities in child welfare work the I.O.D.E. has completed arrangements whereby all school children in grades five to eight will receive dental attention. A check-up will be made of the more advanced pupils, and parents will be advised of the dental work necessary to safeguard health.

Moose Jaw Dental Society

At the February meeting of the Moose Jaw Dental Society held at the Grant Hall Hotel, the President, Dr. W. R. Cooper, was in the chair. The program consisted of four topics chosen for discussion, with one member to lead the discussion in each case.

Dr. D. W. Irwin led the discussion on the question, "How do you treat infection involving partly erupted third molars?"

Dr. Harold Johnson opened the discussion on the subject, "How do you treat cavities which are so deep that they almost involve the pulp?"

Dr. W. J. McCauley was assigned the subject, "How do you restore missing incisal angles?" and Dr. F. C. Harwood dealt with the subject "How do you treat dry sockets?"

It was felt that the topics chosen were of a very practical nature. The discussion disclosed quite a wide range of opinion and practice, and the evening was voted helpful and successful.

EMPIRE NEWS

GREAT BRITAIN:

Dental Board of the United Kingdom

(Excerpt from Finance Committee Report,
November, 1937)

The Committee recommends: "That, subject to the approval of the General Medical Council, the following amounts be allocated for expenditure in the year 1938:

Grants to students and grants in aid of teaching in the dental schools.....	£19,000
Grants to dental schools for extension and equipment.....	4,000
Dental health education.....	5,000
Grants for Research.....	3,000
Post-graduate instruction.....	150
	£31,150

British Dental Journal, January 15, 1938.

AUSTRALIA:

Dental Health Education

The department of Dental Health Education of the Australian Dental Association, New South Wales Branch, continues to earn wider recognition amongst public health organizations each year, and has, by its unceasing efforts, materially furthered the campaign for improved dental hygiene. Many successful avenues for impressing the public with the necessity for conserving dental health have been explored, and the co-operation of outside bodies has been greatly appreciated. Noteworthy is the increased activity in broadcasting. Sixty-one talks have been given during 1937 in contrast with sixteen during 1936. The department is seeking to establish "The Family Dentist" as a familiar personality to listeners throughout the State. In addition, forty-nine lectures were delivered during the year.

Many articles have been published, and the department is considering a scheme whereby the greater use of posters will be employed in the future. Three essay competitions were successfully conducted, the total number of entries received being 3,475.

The department was represented at the Newcastle Health Week Campaign by the Director, and twenty-six addresses were given at schools and public gatherings. In furtherance of the publicity campaign, dental health propaganda has been exchanged with overseas organizations.—D.J. of Australia.

SOUTH AFRICA:

"Whither Dentistry"

The Pretoria Branch of the Transvaal Dental Association have pioneered a new era in dentistry in South Africa.

All over the world there is talk of nationalizing dentistry. Here as elsewhere the profession has been accused of not meeting the semi-indigent section of the population.

The Pretoria Branch, of which every practicing dentist in Pretoria is a member (perhaps this is a record), has arranged to receive a fixed sum per month from the Steel Corporation Sick Fund.

The Sick Fund patients are divided into groups. Certain very low income groups are treated at the Pretoria Dental Clinic. The Steel Corporation Sick Fund pays a per capita sum to the Clinic for its semi-indigent members only. All other classes have to go to their private dentist where they are allowed 20% discount on standard fees. There is a paid panel of dentists who go to the Clinic for a two hour session to treat these Sick Fund patients.

This is Pretoria's answer to "Whither Dentistry,"—how to retain private practice and yet serve every member of the community.

A clinic constitution has been drawn up by this Branch which has been accepted as a model constitution by the D.A.S.A., and it appears that eventually there will be clinics in all the big centers in South Africa with paid panels of dentists working part time while retaining their private practice as well.

—H. Goldin.

Annual License Fee

The medical and dental professions pay a £10 annual license fee.

The Associations have just emerged the losers from a big battle with the Minister of Finance over the question of the abolition of this tax.

When one is labouring hard on a warm summer's day doing honorary work at the Out-patient departments of hospitals, the iniquity of this tax becomes intolerable. Taxed, it almost appears, for the right to be able to do free work for the Government.

—H. Goldin.

GENERAL NEWS

Dental Health for the Low Income Groups

Dr. George W. Wilson of Milwaukee, chairman of the Committee of Socio-Economics of the American College of Dentists, to his committee members states that eight bills dealing with the delivery of health service were introduced into the last session of the Wisconsin Legislature. He says: "All of the bills were finally defeated, due to the co-ordinated action of the medical, dental, and nursing professions of Wisconsin. During legislative committee hearings our professional committees were frequently confronted with criticism by the proponents of these bills. This question was frequently asked: Why do the health professions continuously oppose legislation of this kind and yet offer no plan of their own to provide this service for the low income group? * * * Our position would have been more secure if we had some constructive, professionally controlled plan of providing more service to that group of the population which these bills were intended to cover."

The dental profession has no answer because it knows of no immediate plan that is practical and workable to provide adequate dental health service to all the people. There are too many factors involved. What is adequate dental health service? What would be the average cost per individual to provide this service? How many dentists would it take? Where is the money coming from to provide it? How could it best be administered economically and efficiently? Upon what conditions shall it be given? Shall it be adequate for some classes and emergency for others? These are some of the questions dentistry needs answers for, in meeting the growing demand that something be done.

Some fact finding studies should be made, and they need to be made soon. Guess work is not creditable and will result in dentistry either being ignored in any plans for an extension of health service to the underprivileged, or in dentistry being saddled with impractical, ill-advised plans. Dentistry is rightly urging its importance as a health service. It must be prepared to discuss intelligently the possibilities of how its services can best be extended to a larger portion of those who need it.—*W. R. Davis, A.B., D.D.S., F.A.C.D.,*

in Journal of the Michigan State Dental Society, Oct., 1937.

Nobel Prize Award

For his efforts in isolating and identifying ascorbic acid or Vitamin C, Professor von Szent-Gyorgyi, son of a once wealthy Austrian, received this year's Nobel Prize award. At the Chicago stock yards he had worked on tons of adrenal glands of cattle but with very little success. Returning to his native land he experimented with paprika which legend says his wife served one day in too generous quantities. Taking his plate to the laboratory, as a last resort he tried an analysis on this food and finally extracted quite a considerable amount of the ascorbic acid. Further tests produced the same results.

Apart from its cheapness he found the pure vitamin notable for the ease with which its properties could be assimilated by a simple injection in the treatment of many diseases that had hitherto baffled medical science. Remarkable results have been recorded through the use of this substance in puerperal hemorrhages, nephritis, certain non-inheritable forms of haemophilia, and Addison's disease. Cures of pyorrhea have also been reported. Professor Szent Gyorgyi has laid no claims to the miraculous propensities of his find and has contended that medicine must continue to test its properties carefully.—*The Dental Outlook, January 1938.*

Travelcade of Plastics to Open at Radio City

The dramatic story of the development of an idea into a material, and the development of a material into a great industry will be vividly presented at the Museum of Science and Industry, Rockefeller Centre, New York, from March 1 to 31, inclusive.

On view will be a reproduction of a corner in the little laboratory in Yonkers, New York, where, in 1907, Dr. L. H. Baekeland developed Bakelite resinoid, a discovery which marked the beginning of our modern plastics industry.

The growth of the industry is entertainingly presented by a series of animated and dramatic exhibits, indicating where plastics play a part in modern living. Among them are the uses of

plastics in aviation, household appliances, building, business machines, abrasives, home furnishings, photography and optics, packaging, radio, machinery, fashions, automobiles, paints and varnishes, communications, amusements, music and the health of humanity.

Interesting tests will be demonstrated and a new sound-on-film-picture, entitled "The Fourth Kingdom," will be shown. In this picture, Lowell Thomas describes how chemical research has taken the three kingdoms, Vegetable, Mineral, and Animal, and created

a fourth kingdom, whose boundaries are unlimited.

Those who have previewed the Travelcade have, with pardonable exaggeration, described it as "a year's education in an hour's entertainment."

When the Travelcade leaves Radio City, it will start on a city-to-city tour for a period of two months in New Jersey. After that it will be installed for the remainder of the year in the Franklin Institute, Philadelphia.

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

W. S. Hall, M.P. of Edmonton, died on January 27, having been in poor health for some time. He had been in the active practice of dentistry at Edmonton for many years.

Dr. Hall was born at Mount Forest, Ontario, in 1871. He was educated at Hawkesbury, Ontario, and the Royal College of Dental Surgeons at Toronto. In 1911 he was married to a daughter of James Dudgeon, of Victoria, B.C.

Dr. Hall was one of the active organizers of the new "Social Credit" party in Edmonton in 1935, and sought election to the Alberta Legislature, unsuccessfully, in August of that year. He won the "Social Credit" nomination for Edmonton East in the Federal election two months later, and was elected.

Dr. Hall was a Mason and a Shriner, and a member of the Baptist Church.

He is survived by his widow, a daughter and a step-son.

•
Robert Bruce Burt—of Hamilton, Ontario, aged 74, died January 23, at Hamilton General Hospital, following a long illness. He practised in Burlington and Hamilton for about 25 years, retiring about 30 years ago. He was a former chairman of the Board of Governors of the Royal College of Dental Surgeons. Fraternally he was a

member of the Masonic Order, the Scottish Rite and the Travellers' Club. In religion he was an adherent of the Presbyterian Church.

Dr. Burt was a noted bridge and whist player, many years ago being a member of the team which won the Dominion whist championship. He was a member of the Hamilton Golf and Country Club and the Glendale Golf Club.

Surviving are one son and one sister, Mrs. Beasley, with whom he resided.

•
R. P. Field—of Owen Sound, Ontario, aged 63, died February 17, following a long illness. He graduated from the R.C.D.S. and practised in Owen Sound for twenty-eight years. He was Past President of the North Grey Liberal-Conservative Association, also Kiwanis and lawn bowling clubs. He was a member of North Star Lodge, No. 322, A.F. and A.M.

Dr. Field is survived by his widow, one daughter, one son, two sisters and two brothers.

•
Lawrence Thompson—of Perth, Ontario, died suddenly at his home from a heart seizure in January. He graduated from the Royal College of Dental Surgeons of Ontario in 1917. He practised in Perth. Dr. F. L. Thompson, of Westborough, Ontario, is a brother.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Têtreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

En Marge du Prochain Congrès

LE 3ième congrès des chirurgiens-dentistes de langue française de l'Amérique du Nord tenu en mai 1937 fit l'étonnement de tous et se termina en beauté. Imposant par le nombre, la qualité de ses adhérents et aussi par la variété de ses travaux, il fut un succès tel que les organisateurs n'osaient l'espérer, même dans leurs plus beaux rêves.

Ce congrès nous a prouvé une fois de plus, qu'avec un peu d'esprit d'initiative, d'esprit scientifique et de solidarité et un peu d'argent, nous pouvons faire de grandes choses.

Au début de juin nous aurons un quatrième congrès qui, nous en sommes certains, surpassera en splendeur tous les congrès précédents, car nous avons à notre disposition tout ce qu'il faut pour en faire un succès. Unis nous le sommes,

surtout depuis la fondation de notre Association, l'esprit scientifique qui a pu jusqu'aujourd'hui transformer les montagnes, nous l'avons. Pauvres nous ne le sommes plus depuis que l'honorable Secrétaire Provincial, ami sincère de notre profession, nous a accordé un généreux appui financier. A cause du très grand nombre de dentistes qui se sont inscrits pour cet événement, le Comité d'organisation a décidé de tenir ce quatrième congrès à l'hôtel Mont-Royal. Contrairement aux années passées, les cliniques et conférences seront remplacées par des sujets dentaires filmés. Nous n'en doutons pas, ils seront appréciés des congressistes qui sans bousculades et confortablement assis, pourront suivre toutes les étapes d'une opération ou d'une démonstration.

Plusieurs de ces films ont été tournés par nos confrères canadiens-français et un grand nombre par nos confrères américains. Pour ceux qui n'ont pas une connaissance parfaite de l'anglais, le comité d'organisation s'est assuré le concours d'un interprète qui traduira les titres à mesure qu'ils se dérouleront devant les spectateurs. Après la présentation de chaque film, une demi-heure sera consacrée à la discussion et aux explications. Il y aura aussi une exposition

par manufacturiers dentaires et ce sera probablement la plus belle et la plus importante jamais vue au Canada.

Enfin aux dames, dont le sourire ensoleille toujours nos réunions, nous promettons un séjour très agréable.

Donc rien n'y manquera et nous sommes en mesure d'écrire que quiconque s'abstiendra perdra beaucoup. Ami lecteur, nous vous attendons, nous avons besoin de votre appui, nous comptons sur vous.—*Paul Geoffrion.*

Faut-il Extraire Toute Dent de Sagesse ?

SOUS ce titre, notre confrère de Montigny publiait dans notre dernier numéro une étude fort intéressante d'un de nos grands problèmes.

Cet exposé ne manquera pas de faire réfléchir et surtout de susciter des questions et des commentaires. Aussi nous ne doutons pas que l'auteur nous permette de ne pas accepter sa conclusion a priori et d'exprimer notre opinion tout de suite. Ceci nous attirera peut-être d'autres théories capables de jeter beaucoup de lumière sur cette question.

D'abord, est-il bien vrai que ce problème soit de notre siècle? Nous n'en sommes pas bien certains car, aussi loin qu'il est possible de remonter dans l'histoire de la dentisterie il est toujours question de dents incluses. L'usage des rayons-X ne nous aurait-il pas par hasard tout simplement fait connaître un très vieil état de chose? En tous cas Roy Bier de Winnipeg nous laisse entendre qu'il y en avait aux temps peu modernes des Pharaons. "That impacted teeth are entirely due to soft diets cannot be correct unless the Pharaohs, 3500 years ago lived on soft diet." Nous retiendrons ce témoignage, il répond déjà à l'autre question que sous-entend l'auteur dans sa

conclusion: "ces anomalies dentaires sont-elles tant liées à la question du régime alimentaire? Nous en doutons fort, et il est bien à craindre que nous nous soyons laissés entraîner dans cette voie par l'enthousiasme irréfléchi de quelques-uns de nos voisins capables pour un jour de se prendre au sérieux et d'écrire le fantastique traité "How to grow bigger and better elephants".

Nous en avons tant vu depuis quelques années de ces échantillons désabusés par les régimes les plus prétentieux. Ils se comptent par dizaine maintenant chez tous les praticiens, les mamans découragées qui s'écrient: "Mais qu'est-ce qu'il faut donc faire pour prévenir toutes ces caries chez les enfants. Nous avons eu les meilleurs médecins. Nous n'avons ménagé ni le lait ni les jus d'orange, nous les avons gavés de tous vos concentrés d'huile de foie de morue, vitamines, fruits, légumes etc. et leurs dents ne sont pas meilleures pour tout cela."

Il y a dans ce cri de désillusion plus de lumière que dans tous les traités de diététiques, parce qu'il nous fait voir des faits et non des théories.

Sans doute il ne faudrait pas exagérer la réaction et crier leur condamnation aux

diététiques, car il y a beaucoup de vérité dans leurs affirmations et l'humanité leur devra beaucoup. Mais nous sommes bien prêts de croire qu'il se trouvera bientôt des biologistes sérieux assez scandalisés des applications extravagantes qu'on a faites de leur science pour nous crier: "Halte là, c'est assez. Nous avons bien cherché, trouvé et expliqué les recettes que cache dame nature, mais elle est trop bonne cuisinière pour l'envoyer à l'hospice et la remplacer par des chimistes. Si nous ne profitons pas de toutes les merveilles que nous avons découvertes dans sa cuisine, c'est tout simplement que notre régime de vie ne nous le permet plus."

Et puis ça deviendra le thème de toutes les revues scientifiques, médicales et dentaires. Alexis Carell l'a bien laissé voir.

Nous croyons donc notre régime de vie, bien plus que notre régime alimentaire, responsable des désordres de notre économie physique et morale. Activités fébriles, manque d'hygiène, d'air, de soleil, de repos, de paix, en somme; tout ceci semble avoir beaucoup plus fait pour la déchéance de notre espèce que les plus mauvais régimes alimentaires.

Et voici bien ce que nous en dit W. Hess de Zurich: "Nous pouvons cependant nous associer aux déclarations de Rebel qui dit: "les innombrables facteurs isolés, dont l'assemblage complexe constitue la vie en général, et les conditions de la vie permettent de déduire que la vie de la dent et des tissus avoisinants n'est pas dépendante d'un seul facteur isolé, mais bien du mécanisme et de la liaison de tous ces facteurs entre eux. Ainsi, ce c'est pas tel ou tel hormone, ou tel ou tel minéral qui est le facteur essentiel, mais leur combinaison quantitative et corrélative. La diététique dont on parle tant aujourd'hui ne nous offre aucune indication, même si ceux qui la recommandent peuvent nous fournir des données exactes sur leur méthode, car

nous avons certains facteurs actifs, sans diététique, qui deviennent totalement inactifs avec une diététique particulière. Cela nous oblige à jeter un coup d'oeil sur les divers modes d'alimentation des peuples et les conditions de leurs mâchoires, qui sont aussi bonnes ou mauvaises chez les carnivores que chez les végétariens. De plus amples recherches seront encore à faire dans ce domaine, qui n'excluront pas, pour nos problèmes principaux concernant la carie, les traitements de racines, la paradentose, la présence de certains facteurs encore inconnus, indispensables au libre mécanisme des forces. C'est pourquoi nous nous attachons aujourd'hui, et certainement pour longtemps encore, à la prophylaxie locale dont les résultats sont bien supérieurs à ceux que proclament certains thérapeutes de l'alimentation."

Autre point. Nous ne sommes pas prêts à admettre d'emblée qu'il faille extraire la dent de six ans pour accommoder une troisième molaire à l'étroit.

Nous croyons même que jamais ce but ne peut justifier l'extraction d'une seule dent de six ans. Evidemment toute dent, fut-elle la première molaire, qui peut devenir un foyer d'infection et menacer la santé, doit être extraite, mais à part cet inconvénient, gardons-nous bien de la faire disparaître, nous n'atteindrions pas le but proposé. D'abord si cette dent est capable de supporter un "amas difforme de métal", rien ne l'empêchera de tolérer une belle restauration et de sa morphologie et de ses fonctions. En outre, ne l'oublions pas, il s'agit ici d'adolescents, dont "l'élaboration structurale est complétée". Eh bien! nous croyons qu'à cet âge l'extraction d'une dent de six ans pour permettre l'éruption normale d'une troisième molaire n'atteindrait pas son but.

En effet, si la deuxième molaire allait se déplacer horizontalement et venir se placer verticalement à la place de la

première molaire pour permettre à la troisième de faire une éruption verticale, ce serait parfait. Mais il nous semble bien qu'à de rares exceptions près, il n'en serait pas ainsi. La deuxième molaire s'inclinera vers l'avant pour prendre une position oblique entre la verticale et l'horizontale, et la troisième suivra invariablement dans la même direction.

Résultats: deux molaires en malposi-

tion ne présentent à l'occlusion que l'angle occluso-distal d'où: inclinaison de plus en plus grande, deux faces mésiales inaccessibles au nettoyage naturel ou mécanique, ébranlement, caries, gingivite, pyorrhée, et perte prématurée de ces dents. Serons-nous plus avancés? Ici nous faisons appel à la science des orthodontistes pour trancher cet amical différent.

Alcide Thibaudeau, D.D.S

L'Orthodontie

par PAUL GEOFFRION, B.A., D.D.S., A.I.D.O. (R.A.)

*Membre de l'Académie Internationale d'Orthodontie
Professeur Titulaire d'Orthodontie de l'Université de Montréal*

Chapitre 3.

DEFINITION DE L'ORTHODONTIE

L'ORTHODONTIE est une science qui prenant pour base le système dentaire à l'ETAT NORMAL, en détermine les DEVIATIONS MORPHOLOGIQUES; recherche les CAUSES qui les ont produites, prévoit les CONSEQUENCES qu'elles entraînent et enfin institue une THERAPEUTIQUE appropriée principalement MECANIQUE dont le but est d'obtenir la RESTAURATION anatomique et fonctionnelle des organes déplacés". (*Izard*).

L'enfant atteint de malocclusions est avant tout un malade et l'orthodontie qui le guérira, "n'est pas un métier comme la ferblanterie", mais une SCIENCE médicale dont le problème est essentiellement biologique sans sa nature. Une anomalie est un cas médical relevant, non de l'empirisme et du reboutage, mais de la thérapeutique; thérapeutique chirurgicale, physiologique et mécanique. Par son importance, la thérapeutique mécanique caractérise vraiment le traitement orthodontique. Mais parce qu'elle donne les résultats les meilleurs et les plus précis,

il ne faudrait pas conclure que l'orthodontie est simple et pur métier ou tout au plus un art comme l'architecture. Il est vrai que les appareils employés en orthodontie sont des dévis mécaniques. Mais il ne faut pas oublier que ces dévis mécaniques ne servent qu'à stimuler les tissus qui supportent les dents et qu'ils ne sont efficaces qu'en autant que la force appliquée ne nuira pas à leurs fonctions. "Les moyens employés pour accomplir une certaine chose ne déterminent pas nécessairement la nature du problème renfermé. Les instruments et la technique de n'importe quelle opération sont toujours déterminés en vue de la fin." (*LeRoy Johnson*). Ceci semble trop évident à mentionner. Cependant beaucoup de nos confrères, croient que l'orthodontie comme toutes les autres opérations dentaires ne sont ni plus ni moins que des problèmes mécaniques parce que l'orthodontie ou l'art dentaire, pour arriver à leur fin, se servent d'appareils pour la correction des anomalies. Pourtant l'enlèvement de l'appendice, d'une amygdale, est aussi un procédé mécanique, mais personne ne considérera

la connaissance technique de l'opération, une qualification nécessaire pour être chirurgien." (LeRoy Johnson). La technique sera essentielle au chirurgien, mais la connaissance antérieure à celle de technique, celle qui spécifiera le danger qu'il y a d'opérer n'est pas dans la technique. De même poser un appareil d'orthodontie, cimenter une bague est mécanique, mais savoir quand poser cet appareil, quand l'enlever, comment agir durant un traitement, tout cela exige une connaissance médicale et une science que l'on ne trouve pas dans la ferblanterie ou la plomberie.

Chapitre 4.

LE SYSTEME DENTAIRE A L'ETAT NORMAL

En orthodontie comme c'est le système dentaire à l'état normal qui détermine la nomenclature, inspire le diagnostic et le traitement, il est logique de connaître d'abord les CARACTERES NORMAUX d'une occlusion et d'une arcade normale avant de passer à l'étude des anomalies et à leurs modes de traitement. "Imaginons un instant que nous ne connaissons pas la disposition normale d'une occlusion; méconnaissions hypothétiquement pour un moment ce bel ordre des dents. Oublions cet ensemble harmonique magistral.

Qu'est ce qui nous indiquera la malposition des dents? Rien. Seule, une notion incomplète d'esthétique, une tendance intuitive d'embellir pourra nous diriger dans notre travail, qui par suite de l'absence d'une modèle de beauté réelle et tangible, répondant à l'organisme sera compris de façon différente suivant l'éducation artistique ou le sentiment esthétique de chacun. Les uns en corrigeant un prognatisme par exemple se contenteront de faire disparaître la proéminence labiale qu'entraîne cette difformité; d'autres plus délicats, voudront qu'indépendamment de cela, les bords antérieurs des incisives centrales coïncident verticalement avec les ligaments et avec leurs congénères inférieurs. D'autres enfin dont le sentiment du beau est plus développé, exigeront plus encore. Mais en l'absence de critérium, quel est celui qui suivra le droit sentier de la vérité? (Subirana).

Dans les pages qui vont suivre nous étudierons donc ce critérium de vérité le système dentaire à l'état normal c.à.d. l'occlusion normale sur laquelle nous pourrons baser toutes nos comparaisons et que dans nos traitements nous chercherons toujours à obtenir par tous les moyens mis à notre disposition.

Une Insulte

IL y a quelques temps un citoyen quelconque qui se dit le protecteur des ouvriers, a fait contre notre corps professionnel une sortie des plus maladroites. Si cet individu (bien connu à Québec sous le nom de "Pit"), n'était doublé d'un homme public, nous l'aurions ignoré. Dans les circonstances il était impossible de laisser passer. Aussi avons nous cru qu'il serait agréable à tous les membres

de notre profession de lire la protestation que notre distingué confrère le docteur Hamel lui a servi à la Chambre des Communes. Vous verrez ensuite comment nos techniciens ont paré le pavé.

Dans le discours du trône, le gouvernement admet que les diverses professions ont rendu des services. Il entend les traiter toutes avec justice. Le gouvernement ne dit pas ce qu'il fera des

professions trustardes. Le député de Saint-Sauveur accuse la profession dont je fais partie d'être un trust; il promet même de présenter à l'Assemblée Législative, un bill qui permettra désormais aux mécaniciens-dentistes, aux techniciens de recevoir des clients pour leur confectionner des pièces de prothèse.

Je dirai au député de Saint-Sauveur que dans tous les pays civilisés du monde, pour l'exercice de l'art dentaire, on exige des connaissances médicales et dentaires, en plus de l'habileté technique. Je parle ici, monsieur le président, de cette question non pas pour influencer l'opinion de cette Chambre bien convaincue, je n'en doute pas, de la nécessité d'accorder une juste protection aux professions libérales, mais pour déplorer qu'un député ouvrier se serve de tels procédés pour soulever les classes les unes contre les autres.

Le plus étonnant, c'est que l'an dernier, le 17 mai 1937, le collège des Chirurgiens Dentistes faisait modifier sa loi pour rendre plus difficile la pratique illégale contre les délinquants. Il n'y eut point alors la moindre protestation de la part du député de Saint-Sauveur. Le bill était présenté par mon confrère, le député du Lac Saint-Jean.

Un petit groupe de mécaniciens mécontents avaient cependant demandé au député de Saint-Sauveur de parler pour eux; ils lui avaient même fourni de la documentation, me dit-on. Et sans protestation aucune, le député de Saint-Sauveur a laissé passer cette loi. Il y a là, vous en conviendrez, deux attitudes différentes. Mon ami de Saint-Sauveur veut-il, aujourd'hui, condamner sa propre attitude en Chambre pour ne s'être pas fait le protecteur de la pratique illégale, ou joue-t-il une simple comédie électorale?

Plus de 800 dentistes

Nous sommes plus de huit cents dentistes dans la province de Québec. Aucun tarif n'oblige un dentiste à exiger tel ou tel honoraire pour ses services. Le

dentiste reste libre de travailler aux honoraires de son choix, et les patients peuvent accorder leur confiance à n'importe quel de nos confrères.

Parler de trust en de telle circonstance, c'est afficher une méconnaissance complète de ce qu'est réellement un monopole; c'est aussi chercher à faire de la pure démagogie.

Notre profession compte dans ses cadres des membres qui ont rendu de précieux services à la société. Elle s'est toujours intéressée à la classe pauvre, et je pourrais produire au député de Saint-Sauveur des certificats à cet effet provenant de toutes nos institutions de charité, sans en excepter une seule.

Services gratuits

Les dentistes ont fondé des cliniques. Ils ont payé de leurs propres deniers l'entretien de certaines cliniques durant des années. Ils travaillent gratuitement pour l'assistance publique dans les hôpitaux de la ville de Québec. Il en est de même, je crois, dans les autres villes.

Ils ont confectionné des pièces de prothèse pour des chômeurs, souvent gratuitement, souvent à des prix dérisoires qui ne couvriraient même pas le réel coût de revient de ces pièces de prothèse.

Si le député de Saint-Sauveur veut des preuves, je lui en apporterai signées par les officiers de la Société Saint-Vincent de Paul et des religieux qui se sont occupés des camps de concentration.

Quand une profession s'est intéressée comme la nôtre à la classe pauvre, celui qui se dit le père des ouvriers et que l'on désigne comme l'émule du Frère André, devrait apprécier ces services autrement que par des injures à notre adresse dans le simple but de se faire du capital politique.

Personnellement, j'aurais préféré ignorer les attaques du député de Saint-Sauveur, mais au nom de ma profession,

j'ai cru de mon devoir de protester contre cette insulte lancée à huit cents professionnels de cette province.

J'ai hâte de voir mon ami de Saint-Sauveur se lever en cette Chambre pour présenter son fameux bill pour l'abolition du trust des dents.

PROTESTATIONS DES TECHNICIENS
DENTAIRES CONTRE PIT BERTRAND

QUEBEC, janvier, 1938.

Nous, soussignés, techniciens-dentaires, de la ville de Québec et de Lévis, protestons contre le langage tenu par M. Pierre Bertrand, député de St-Sauveur et échevin de la Ville de Québec, contre les chirurgiens dentistes.

Nous vivons en parfaite harmonie avec les dentistes et sommes satisfaits de notre condition de vie. Nous sommes libres d'organiser des laboratoires pour y servir les dentistes et nous pouvons exiger la rémunération de notre choix. Les techniciens qui travaillent exclusivement pour certains dentistes, reçoivent des salaires comparables aux meilleurs qui s'accordent dans l'industrie.

Les paroles de M. Bertrand nuisent à la société en semant des préjugés de nature à diviser les classes et à les monter les unes contre les autres. Ce politicien

poursuit une œuvre démagogique que nous réprouvons entièrement. Nous ne voulons nullement défendre l'attitude de certains techniciens qui se permettent de pratiquer l'art dentaire contrairement aux lois de cette province, lois qui ne diffèrent pas sur ce point de la législation en vigueur dans tous les pays civilisés.

Les techniciens que vent défendre l'échevin de St-Sauveur en voulant concurrencer les dentistes, travaillent contre notre intérêt autant que contre le public en général.

ODILON BRUN, de "Duquette & Brun, laboratoire";

ROLAND GAUVREAU, technicien;

ROGER LACHANCE;

JEAN-PAUL ROBITAILLE;

RAYMOND LAPLANTE;

PAUL-HENRI ST-LAURENT;

J.-A. DUQUETTE;

ROBERT LAVERDIERRE;

I. VAILLANCOURT;

EMILE MORENCY;

ROMEO GAUVREAU;

JOSEPH THOMASSIN;

RAYMOND LAVERDIERRE;

GAUDIAS LACHANCE;

LOUIS-GEORGES HEON;

ADRIEN GINGRAS;

MAURICE VEZINA.

La syphilis et les dangers de contamination pour le dentiste

Le Siècle Dentaire, janvier 1938

FRANK E. CORMIA, spécialiste des questions de ce genre vient de faire à Montréal une fort intéressante étude sur la position moderne du problème de la syphilis dans la dentisterie.

Ces mesures prophylactiques classées

avec soin par F. E. Cormia sont les suivantes:

Le dentiste doit d'abord faire un examen préliminaire des lèvres, de la bouche et de la gorge du malade. Cette inspection doit être faite en pleine lu-

mière, les muqueuses, le palais et la langue étant examinés.

Toutes les lésions doivent être suspectées par le dentiste à moins qu'il ne soit en présence de lésions bénignes comme celle des papilles de Fordyce ou à moins que la lésion inquiétante ne soit certifiée non syphilitique par un médecin spécialiste.

Le dentiste doit d'ailleurs toujours maintenir intacte la peau de ses mains. Les fissures, les zones d'eczéma, les dermatites dues à la novocaïne sont autant de portes d'entrée pour le spirochète.

Même si la bouche est intacte, le sang qui s'écoule lors d'une intervention peut contenir des spirochètes et il faut éviter d'en laisser pénétrer par une blessure des mains.

Avant une opération importante, F. Cormia n'hésite pas à recommander aux dentistes de faire un Wasserman. Cette réaction ne permet pas évidemment de déceler tous les cas puisqu'il arrive qu'elle soit négative même lorsque des lésions existent mais dans les cas où elle est positive elle constitue une indication certaine.

Le dentiste doit stériliser ses instruments, se masquer et laver soigneusement ses mains après les opérations.

Dans les cas où l'on craint une contamination par le sang du malade, il convient de faire un diagnostic immédiat. On prend du sang de la cavité dans une pipette, on fait un test de précipitation de Kline. Ce procédé nécessite seulement un microscope et l'antigène syphilitique préparé; il peut être fait en une demi-heure.

Les lésions infectieuses sont rapidement rendues non infectieuses par le traitement au néosalvarsan.

Si on a des craintes en présence d'un sujet il n'y a qu'à lui faire faire deux ou trois injections de neosalvarsan; ainsi tout dentiste peut se sentir garanti contre cette infection.

Si le dentiste est contaminé il sera atteint de chancre extragénital, c'est un risque qui est moins fréquent que dans la profession médicale mais que le dentiste court cependant aussi. Le lieu habituel de ces lésions est l'extrémité des trois doigts du milieu de la main gauche.

Malheureusement il se peut que ces chancres ne soient pas reconnus tout de suite par le dentiste qui ne les décèle que trop tardivement.

Aussi tout dentiste doit-il surveiller les moindres petits boutons qui se forment sur ses mains et dans la suite s'adresser à un médecin.

En général le dentiste se trouve en présence de lésions infectieuses récentes chez ses clients il peut alors jouer un rôle de médecin et les déceler.

Les chancres qu'il peut trouver sont en général petits et érosifs, fréquemment ulcérés, dus à une infection secondaire. Ils sont situés sur les lèvres dans 75% des cas. On peut souvent les confondre avec les cancers; dans les deux cas il y a induration et léger œdème. Un furoncle peut souvent ressembler à un chancre mais l'évolution diffère. Sur la langue le chancre est érosif ou ulcéré.

On peut encore occasionnellement rencontrer le chancre sur la tonsille où il est unilatéral, ferme, a la forme d'une plaque grise et est souvent ulcéré.

Les lésions buccales de syphilis secondaire sont très infectieuses; les plus fréquentes sont maculaires ou papuleuses. La papule commissurale est peut-être la plus infectieuse de toutes les lésions syphilitiques, elle est d'autant plus dangereuse qu'elle à l'air inoffensif.

Les signes buccaux de syphilis congénitale sont intéressants pour le dentiste qui peut observer la prédilection marquée encore qu'inexpliquée du spirochète pour ces tissus. C'est ainsi qu'il ronge de préférence l'incisive du milieu et la première molaire dans les cas héréditaires.

Le traitement très précoce des dents peut empêcher les déformations habituelles. Un traitement antisypilitique commencé dès la première année de vie empêche la formation de dents d'Hutchinson dans 93% des cas alors que, lorsqu'on attend jusqu'à l'âge de 7 ans avant de commencer le traitement, on peut seule-

ment préserver 81% des sujets et plus l'on tarde plus la proportion de mauvaises dents croît.

Ces considérations montrent que dans la thérapeutique moderne, dentiste et médecin doivent collaborer étroitement et peuvent être l'un pour l'autre un précieux auxiliaire.

Revue des Revues

par GERARD de MONTIGNY, B.A., D.D.S., M.S.

L'anesthésie générale dans la pratique journalière, par George W. Christiansen, B.A., D.D.S., M.S., Détroit, Michigan.

La narcose, produite par l'usage raisonné et prudent du protoxyde d'azote, procure un état presque idéal pour certaines chirurgies de la bouche. L'emploi du protoxyde chasse de l'esprit du patient nerveux cette crainte qui lui *montre* son anesthésie sous l'aspect d'une calamité épouvantable; il le dispose favorablement aux interventions futures, en abolissant cette torture mentale, qui par son intensité et sa persistance, diminue la résistance du patient.

Nous manquons à notre devoir, si à cause de notre incompétence ou de notre manque de commodités, nous suggérons l'anesthésie locale, quand l'anesthésie générale est indiquée.

Avant de prononcer l'édit contre le protoxyde d'azote, pesons ses avantages et ses inconvénients; on verra que sa sûreté est en rapport direct avec l'habileté et l'entraînement dont on fait preuve dans son administration, tandis que son danger augmente avec la carence des principes qui règlent son emploi. (*J.A.D.A.*, février 1938.)

Etude physico-chimique de l'émail, par Oscar Kannaer, M.D., Chicago, Illinois.

Un grand nombre de chercheurs ont tenté de prouver la vitalité de l'émail dentaire. Une des façons employées pour illustrer leurs avancés est de démontrer la perméabilité de l'émail à différentes teintures; de ce fait, ils allèguent une circulation possible dans l'émail.

L'auteur ici a essayé à son tour la démonstration de la perméabilité de l'émail des dents vivantes, "in situ", à l'aide du bleu de méthylène et voilà ses conclusions:

1) L'émail impeccable des dents vivantes d'adultes est perméable à certaines teintures;

2) Cette perméabilité s'étend au joint enamo-dentinaire seulement;

3) Il existe une membrane bien définie entre l'émail et la dentine, puisque la teinture ne pénètre pas au delà de la dentine, qui elle aussi est perméable;

4) Cette membrane constitue une barrière à la pénétration de la teinture;

5) Il semble probable que les éléments salivaires traversent normalement l'émail. (*J.A.D.A.*, février 1938.)

Les substances employées, de nos jours, dans la fabrication des dentiers et ce qu'il faut en attendre, par D. Kimball, D.D.S., Detroit, Michigan.

D'une enquête entreprise aux Etats-Unis, il ressort que 70 à 75% des dentiers sont faits de vulcanite; 15 à 20% de résine (genre Bakelite); 8% de cellulose et 1% de vinylite.

L'auteur énumère les raisons du faible emploi des substances autres que la vulcanite: difficulté de réparation, fragilité, décoloration etc; il donne ensuite la composition chimique des principaux corps en usage dans la fabrication des dentiers.

Les facteurs, qui doivent présider le choix des substances à dentiers sont les suivants: tolérance par les tissus, absence de goût ou d'odeur, résistance, stabilité de forme, stabilité de volume, volume, couleur agréable et permanente, adaptation, manipulation simple, facilité de réparation, poids, conductibilité thermique.

L'auteur discute la valeur de chacune des substances en regard de ces qualités. (*J.A.D.A.*, février 1938).

Le diagnostic et le traitement palliatif de la névralgie trifaciale, par V. Aubrey Crick, D.D.S., Toronto.

La névralgie du trijumeau est caractérisée par des douleurs épouvantables de la face, aggravées par le toucher ou le mouvement et qui ne peuvent être soulagées par les moyens médicaux ordinaires.

La seule façon de soulager ces douleurs est l'injection profonde du nerf avec l'alcool; l'unique moyen d'assurer un soulagement permanent est la section de la branche sensitive du nerf.

Si on doute du diagnostic, une injection de novocaïne nous fixera sur ce point.

Les dentistes devraient reconnaître ces

névralgies, car souvent ils sont les premiers à voir les symptômes initiaux. (*Oral Health*, décembre, 1937).

Les colloïdes dans le traitement des paradentoses, par M. E. Nivard.

Les colloïdes jouissent, dans le traitement des affections buccales, d'une efficacité aussi remarquable que dans les autres affections d'origine microbienne et les septicémies.

Certains métaux ou métalloïdes paraissent présenter dans ce cas particulier une valeur toute spéciale due, non plus à la forme colloïdale, mais à la nature du colloïde même. (*La Revue Odontologique*, décembre 1937).

Les méthodes d'examen du tube digestif supérieur dans leurs relations avec la pratique dentaire, par M. le Docteur P. Camena d'Almeida.

L'auteur nous énumère les renseignements que peut apporter à la pratique odonto-stomatologique d'étude du fonctionnement gastro-duodénal. Il passe en revue les méthodes récentes de prélèvement du suc gastrique et de la bile et nous dit ce qu'on peut attendre de l'endoscopie gastrique.

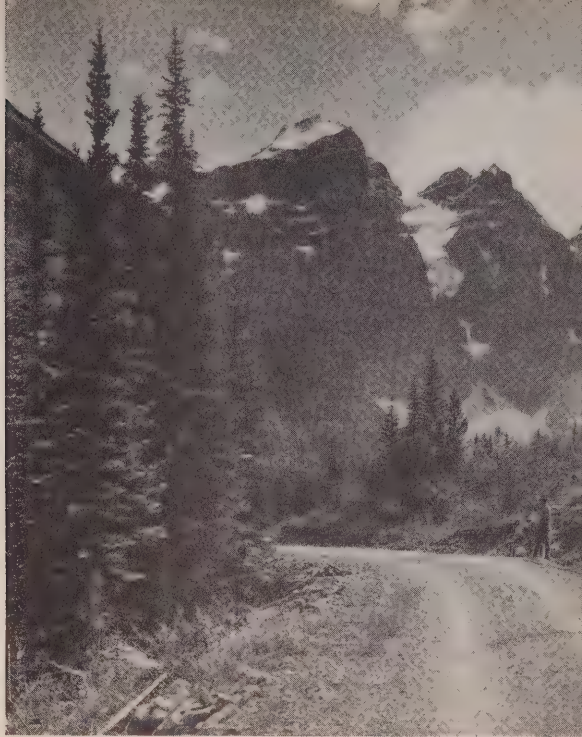
Il termine en montrant que la sédation des poussées douloureuses au cours de l'évolution des ulcères digestifs n'est réalisable qu'après suppression des foyers septiques bucco-dentaires. (*La Revue Odontologique*, décembre 1938).

Quelques remarques sur la configuration générale des molaires, par M. E. Mar-seillier.

La morphologie complexe des dents est le résultat de nécessités à la fois biologiques et mécaniques. Dans cet exposé, l'auteur signale quelques particularités de la forme générale des molaires et tente d'en expliquer les causes d'ordre mécanique. (*La Revue Odontologique*, décembre 1937).

Valley of the Ten
Peaks near
Lake Louise.

*Photo by courtesy of
Canadian Pacific Railway*



In general, nine-tenths of our happiness depends upon health alone. With health, everything is a source of pleasure; without it, nothing, whatever it may be, is enjoyable; even the other personal blessings—a great mind, a happy temperament—are degraded for want of it.

It follows from all this that the greatest of follies is to sacrifice health for any other kind of happiness, whatever it may be, gain, advancement, learning or fame, let alone then, for fleeting sensual pleasures.—Schopenhauer.



H. J. MERKELEY, M.D.S.,
Winnipeg, Manitoba.

Lecturer in Dentistry, Medical Faculty, University of Manitoba.

Past President Winnipeg Dental Society.

Past President Manitoba Dental Association.

President Western Canada Dental Society.

Immediate Denture Insertion for Radical Cases*

by GEORGE A. MORGAN, D.D.S., Toronto, Ontario.

ALTHOUGH alveolectomy was practised to some extent as early as 1850, it is only in the last decade that surgical preparation of the mouth for the immediate reception of artificial dentures appears to have been extensively practised.

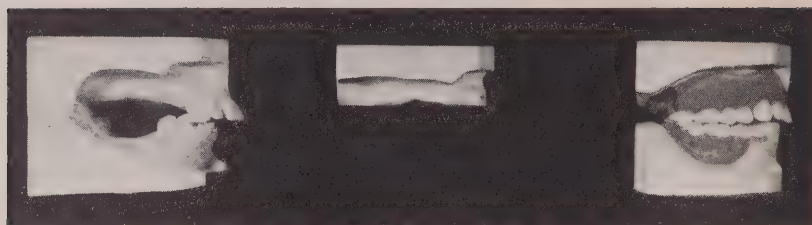
In all immediate denture insertion techniques, several important factors should be paramount. (1) A large and firm area upon which the base of the denture may rest. (2) As great a transverse dimension from buccal wall to buccal wall as it is possible to maintain after the loss of the teeth. (3) Ridges of sufficient height if possible, to leave between the opposing arches, when in proper occlusal relation, sufficient space for the arranging of the artificial teeth, together with their investing base plate, directly above the summit of these ridges. (4) The crest of the ridge as broad as possible, gracefully rounding at the lingual and again at the labial margins. (5) An upper arch in direct opposition to the lower arch in the buccal region and somewhat overhanging the lower arch in the labial region.

Occasionally, the general practitioner will be confronted with a prognathistic problem, such as the case at hand. Case history is somewhat similar to all those in

this group, namely, female patient, of middle age, subject to frequent embarrassment due to extensive protrusion of the anterior maxillary teeth as illustrated in Figure 1a. The lip was elevated to such an extent that the opening and closing of the mouth made the patient's appearance unsightly as in profile print Figure 3a. The patient's embarrassment was activated in this case by gingival cavities as illustrated in Figure 2b. Since the patient was not actively engaged in business and therefore time of immediate denture insertion was not an all important factor, it was thought that a better and more accurately fitting denture would be obtained if completed in the manner about to be described.

Dental x-rays of the portion of the mouth under consideration, the anterior maxillary six teeth, served to illustrate roentgenologically that the teeth in question were abnormal in length with malformed roots. This is verified by the photograph of the extracted teeth as illustrated in Figure 2b. The patient was premedicated (1½ grains Nembutal) and, under local anaesthesia an incision was made around the gingival margin of the teeth, extending along the alveolar ridge distal to the region of the first

*Presented at the Toronto Mid-Winter Dental Clinic, King Edward Hotel, December 8, 1937.



A

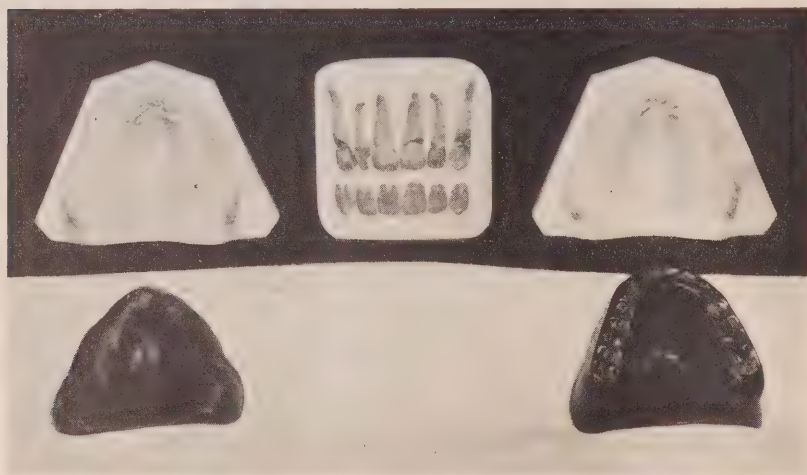
B

C

Figure I

molar, allowing the mucal periosteum to be stripped away from the bone on the labial and lingual aspects with a suitable blunt instrument, down to the apices. Buccal bone was then removed by means of Gardner mallet and chisel technique and the teeth extracted, along with all infected bone, residual areas of infection or infected granulation tissue. Sufficient buccal and labial bone was then removed to restore the lip to approximately normal relationship. Interproximal tags were removed by means of scissors and, buccal, labial and lingual flaps were sutured by means of 000 catgut. At this

point a careful impression of the upper mouth was taken and sent immediately to the dental laboratory with instructions to pour a plaster model and mould a base plate to it as in Figure 2a. To insure comfort about the periphery of the base plate splint, a thin layer of wax was spread over the area. A sprinkling of Wernet's powder on the palatal side of the splint aided retention in the mouth. The purpose of this base plate splint was thought to be threefold. (1) Control of hemorrhage and to some extent, swelling, at the same time supporting bucco-lingual alveolar occlusal margins in apposition.



A

B

C

Figure II

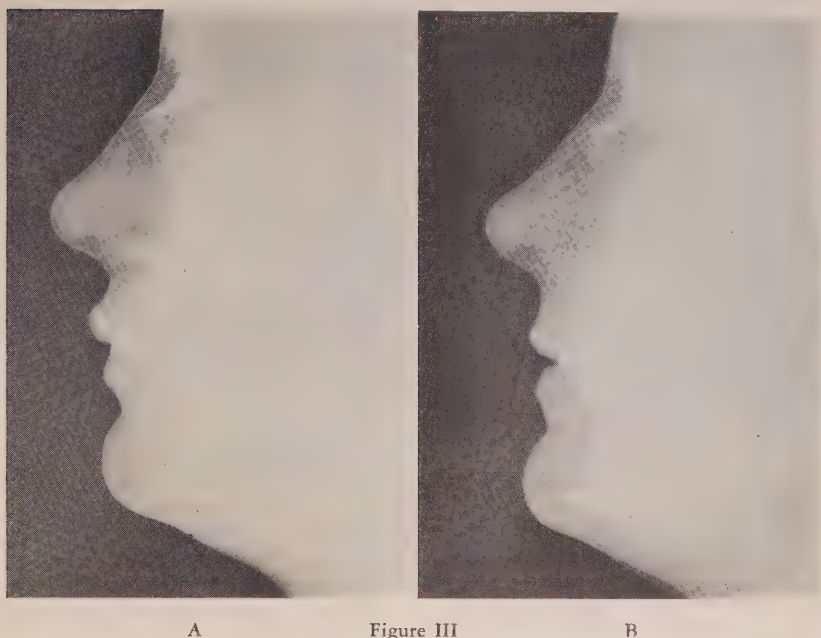


Figure III

(2) Promotion of more rapid regeneration and support of the blood clot.
(3) A certain sense of security afforded the patient, allowing her to take warm fluids without discomfort.

When the patient returned approximately twenty-four hours later, a vulcanite bite-block, as illustrated in Figure 2c, was inserted. This block, with occlusal markings of the lower teeth, served to maintain the approximately correct chin-nose relationship, thus relieving any undue stress on the tempo-mandibular fossa and the muscles associated with its function.

The patient was instructed to read aloud as much as possible during the next twenty-four hours. At the end of this period, or forty-eight hours after the removal of the teeth, a new Luxene denture was inserted. By this time swelling was considerably reduced and the psychological contrast of the small, light

Luxene denture to the bulky, heavy vulcanite bite-block previously worn, was most gratifying.

Post-operative pain and swelling were taken care of by means of an ice pack and aspirin and codeine in combination. The resultant minimal swelling was reduced by means of hot applications.

Before and after profiles as illustrated in Figures 3a and b, coupled with complete patient satisfaction, serve to justify this technique.

In the success of this case we are indebted to Dr. Arthur W. Ellis for the reference of the patient, accurate pre- and post-operative impressions, selection of teeth and operative and post-operative psychology. We are also very grateful to Mr. C. L. Daly for his aid, particularly in the immediate adaption of the base plate splint to the plaster model.

2 Bloor Street East.

Jaw Clinics

From the Montreal General Hospital and the Department of Oral Surgery, McGill University.

by J. W. GERRIE, B.A., D.D.S., M.D., C.M., D.L.O. (Eng.)

SPONTANEOUS DISLOCATION OF THE JAW

3938/33 Mr. A. D., who is 40 years old, comes to our clinic to have several teeth removed. You will notice as he opens his mouth that there is a resounding "Clack" and excessive movement of the jaw. This occurs on eating, singing, speaking or in any movement of the jaw. It does not bother him in the least and he does not care to have anything done about it.

Observe the large muscular jaw. The condyles shoot violently forward a full inch, the "Clack" being heard early in the course of the motion. Aside from a moderate overbite and the dentoalveolar abscesses for which he comes for treatment, the dentition is essentially normal. He has been prevailed upon to submit to x-ray with the interesting findings shown in Figure 1. These are taken after a method described by Riesner and show the mandibular articulations with the mouth in closed and open positions. The mandibular fossa is of moderate depth, the articular tubercle well-formed and the condylar neck shows a marked forward arching. Notice in the open position the condyle head has passed far forward in front of the articular tubercle to a definite position of dislocation.

This is a case of "lax joint" with spontaneous dislocation or subluxation and marked joint noises. It is often responsible for driving less placid persons to extremes of treatment and even grave mental illness.

THE MOUTH IN LEAD POISONING

5094/37 This boy, age five, is on the

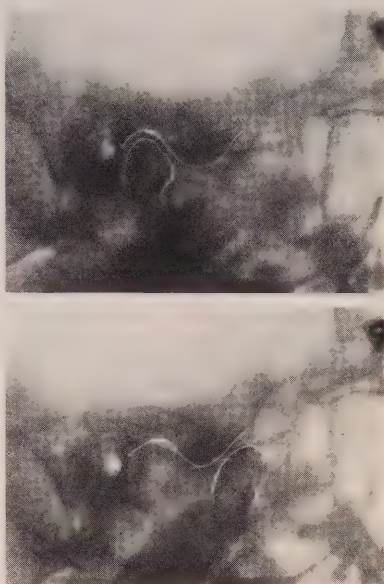


Figure 1.

The mandibular articulation with mouth closed (a), and open (b). Note extreme movement with escape of the condylar head forward over the articular tubercle.

children's ward with a diagnosis of lead poisoning and we have been asked to examine his mouth. He was admitted 20 days ago with complaints of drowsiness, convulsions and diarrhoea. The diagnosis was in doubt for several days but the complaints and history, coupled with the finding of a blue line in the gums, suggested the possibility of lead poisoning. On direct questioning it was found that he had been in the habit of gnawing the paint from his crib. Examination of his blood shows a stippling of the red

cells. X-rays of the long bones reveal well-marked condensations along the borders of the diaphyses characteristic of lead deposition. There is an increased output of lead in the urine. He has improved remarkably under hospital treatment but the process of "de-leading" will be slow. Let us examine his mouth.

All the deciduous teeth are in position and occlusion is good. The mucous membranes are normal aside from two features. There is a dentoalveolar abscess of /e with an alveolar fistula or "Gum Boil." Apparently a/ has been at some time injured for it is bent inward and the labial surface of the root protrudes through the alveolar bone and gingivae with marked inflammation, hypertrophy and exudation of pus from the latter about the bare root. Examine this unhealthy, suppurating area of gum tissue closely and you will note a faint bluish-black line in the tissue close to its margin. This is typical of lead poisoning and also in patients undergoing treatment for syphilis when bismuth is being given in large doses. The "Line" appears about dirty infected areas and not in clean, healthy gingivae. It is believed that the products of putrefaction or suppuration cause the formation of the metallic sulphide and its deposition in the gums.

HARE LIP AND CLEFT PALATE

7621/37 Mr. A. K., age 31, comes to our clinic because of his difficulty in speech. He has had a bilateral hare lip and cleft palate. The lip was repaired in infancy but nothing was done to the palate until recently when the remainder of his teeth were extracted and an obturator of the "Plug" type made. With this he has difficulty. It is kept in position by the tongue and improves his speech but little.

Notice the nostrils are deformed and the upper lip scarred and shorter than its

fellow. See the three separate elements of the palate,—the two maxillae and the premaxilla. The latter is underdeveloped, movable, twisted and an incisor tooth is erupting from it into the left nostril. The cleft is wide in both hard and soft palate regions and an attempt at surgical closure alone would result in a short deficient palate and little improvement in speech. Perfect speech is the aim of cleft palate surgery and the measure of its success.

However, I do think this palate could be functionally reconstructed by a combination of surgery and prosthesis. The remains of the soft palate will be separated from the hard, pushed back and united in the midline to form a curtain capable of closing off the nasopharynx and functioning as a normal soft palate (Fig. 2). An obturator will be made to close the hole in the hard palate and to hold this newly constructed soft palate backward in a position where it can function against the posterior pharyngeal

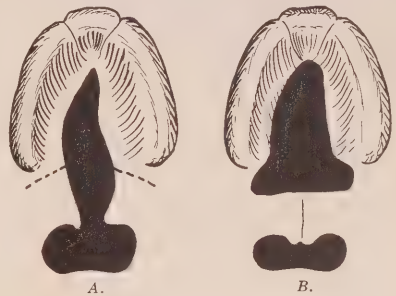


Figure 2.

Diagram of method of reconstruction of functional soft palate by a combination of surgery and prosthesis (Gillies and Fry as modified by Fitzgerald). In (a) the dotted lines represent incisions to free the soft from the hard palate and displace the former backward. (b) Shows the soft palate elements united in the midline and the blacked-in space anteriorly is an obturator constructed in vulcanite with flanged edges to retain it in position and to hold the reconstructed soft palate backward where it can function against the pharyngeal wall.

wall. This is a method introduced by Sir Harold Gillies and Kelsey Fry in London and popularized by Fitzgerald in our own city.

Unfortunately all the teeth have been extracted which complicates our retention problem. May I stress the importance in cleft palate cases of saving teeth if at all possible.

TOOTH ROOT IN THE MAXILLARY SINUS

196/37 Mr. J. B., aged 35, has pulmonary tuberculosis and is being given air injections at intervals to maintain the collapse of his left lung. Three weeks before admission during the removal of a broken-down upper second molar one of the roots passed into the antrum. On admission to us there was some nasal discharge and an antral fistula in the region of the root socket. Roentgenograms (Fig. 3) show a large root fragment present in the maxillary sinus.

A modified Caldwell-Luc operation was done, because of the patient's pulmonary condition, under local anaesthesia. The antrum contained pus and polypi and the root was found free in its middle. Polypi are grape-like, mucoid structures, slow in growth and it is inconceivable that they were formed here since the entry of the root. That is, the patient had chronic sinus disease to which was added this dental foreign body. The antral contents were cleaned out and a large opening made into the nose for permanent drainage. The mouth incision was closed at the end of the operation.

Recovery has been uneventful and he is at the clinic to-day for postoperative



Figure 3.

(a) Oral roentgenogram showing mesiobuccal root of the 2nd molar passed into the antrum; (b) is an extraoral view of the same.

examination. The mouth wound is healed completely and the fistula closed. His pulmonary prospects should be enhanced by having had the chronic antral condition attended to.

His dental surgeon was well-advised in not attempting to retrieve the root through an enlarged alveolar opening. This procedure so frequently fails and is liable to leave a large antral fistula so difficult to close. Roots in the maxillary sinus are no indication of negligence or incompetence but failure to face the complication might be construed as such.

"The worst of all crimes that can be laid at the door of the dentist is that of being a dentist—a whole dentist, and nothing but a dentist."—Edward Sampson.

First be a man.—Phillips Brooks.

Dentistry for Children

by L. OLIVE COLE, D.D.S., Winnipeg, Manitoba

EVERYONE living today is destined to live his life-cycle with the teeth which his own heredity and the conditions of his own birth have given him, subject of course to the vicissitudes of his life history, the conditions under which he lives, and the diseases which he contracts.

Let us describe a life-cycle for teeth which has as nearly perfect a chance as can be made possible.

This cycle begins before birth for at that stage the kind of teeth one is to have is really settled, and lucky the child whose mother during pregnancy has had a super-abundance of the mineral elements which are essential for good tooth-structure. Calcium phosphorus and magnesium are vital. These can be supplied easily and plentifully by many simple foods: for instance, a quart of milk, or a cubic inch of cheese taken daily contains an adequate supply of these elements for anyone, even a mother at this special time. As usual, the old wives' tale that a "mother loses a tooth for every child she bears" states a bitter truth, and it still remains true of mothers who lack these elements during pregnancy. Because these mineral salts are vital for the formation of both bones and teeth, nature secures them wherever possible, and if not available elsewhere, the blood stream dissolves them from the mother's own bones and teeth to her future loss: a loss easily recognizable very shortly afterwards on examination of her teeth. The lack of these elements need not exist. If the simple foods containing them are distasteful, or cannot be digested, the doctor can easily prescribe calcium in

haliver or cod-liver oil. These preparations also contain all the other essential salts, and they can be secured in the preferred form—liquid, capsules or tablets, these last having no suggestion of the frequently objectionable oil taste. If the oil is unnecessary they can now be procured, again in the desired form, with ample vitamin D which insures proper utilization—so there need never be a lack of these elements required in bone and tooth building.

At birth the germs of the sixteen deciduous teeth and those of the all-important six-year molars are already in the jaws and in an advanced stage of development. If the mineral elements have been plentiful and the deciduous teeth are strong and well protected with good enamel the child is lucky, for the six-year-molars, the key stones of the adult arches, will be strong and also decay-resistant. These four important molars, the first of the permanent set to appear, have all the faults or all the good qualities of the deciduous teeth; qualities directly the result of conditions before birth.

The same vital elements required in both bone and tooth-building must continue to be supplied generously in food or medicine to the child from birth till twenty, for after birth the deciduous teeth continue to develop. All erupt at intervals, and calcification of their roots continues till completed when the child is past three. Meanwhile the six-year-molars are developing; they erupt at six—the roots develop and calcify, while the pulp, with its generous blood and lymph supply carrying the mineral elements

needed, gradually fills in most of the large pulp-cavity with dentine until each molar becomes a fully developed tooth by the time the child is twelve or thirteen. These four six-year-molars are important teeth in the child's life-history, because they are the key stones of the adult arches, and carry the burden of mastication during the transition stage. At seven the child has usually lost his deciduous lower centrals, the rest going at irregular intervals, the deciduous molars being shed between eight and ten. Each deciduous tooth lost is normally replaced by a permanent, which is larger than the deciduous one it replaces. So let me repeat, the supply of the mineral elements must continue to be generous for the need is constant, for between birth and 13 years, twenty deciduous teeth have completed development, erupted, and their roots have calcified. They have done their work and disappeared. The permanent teeth have meantime developed, the jaws have grown and the arches enlarged to contain them. The permanent teeth, much larger than the ones replaced, have erupted and the need of mineral salts continues until the calcification of their roots is complete. This is the condition at 13—twenty-eight permanent teeth have appeared and the calcification of their roots is going on while four more molars—the wisdom teeth—are well on in the first stage of development, for they normally erupt between 17 and 20. All this tooth building occurs at the time of greatest bodily growth when the same mineral elements are needed for the bones of the growing body. Bones seem to be supplied first and the teeth get what is left, so the supply must be generous or the teeth suffer.

CHILDREN'S DISEASES

An important duty for every mother is the safeguarding of her own health and

that of her household. Through the years mankind has slowly learned by bitter experience that "prevention, rather than cure," must be the rule always. The old belief that every child must take all the so-called children's diseases and the sooner over the better, resulted in few precautions to avoid contagion. There was many a needless death for it took so long for people to realize that every illness robbed the child of vitality and lowered his resistance and his health reserve; that measles, mumps, whooping-cough and scarlet fever were four of the most fatal menaces of child-life, and that every illness avoided added to a child's chance of survival.

We have also found that each of these diseases has a disastrous effect on the teeth, as has every illness which results in sustained high temperature while tooth formation is in progress, for high temperature destroys these vital elements of tooth structure. You have all seen a line of discoloured spots across the face of some upper centrals and laterals or darkened incisal edges on others of exposed dentine which darkens quickly and soon decays because there is no enamel there to cover and protect it. When this happens there is usually a history of a bad case of measles or another of the troublesome group of child-diseases, with high temperature sustained long enough to burn up enough of the elements to leave a visible defect, and always more flaws are present which will presently darken and appear. The defective teeth require even greater care than the rest, for these spots are very prone to decay.

FIRST VISIT TO DENTIST

Four is none too early an age for a first visit to the dentist, even if the mother is positive there is no sign of decay, not even the tiniest discolouration which often shows up as a flaw in a

L. OLIVE COLE

centre groove. It is a kindness to the child and to the dentist to make the first visit before there is any symptom of pain—lucky the small patient who, at the first visit, requires only to have his teeth cleaned. Something definite should be done; even cleaning the teeth makes the difference and gives the child confidence because something is accomplished and takes away that feeling of strangeness, that fear of new things. With no distraction of pain and the fear of more, his reaction and his future association with dentistry and dentists will be happier and entirely different throughout his life from that of the unfortunate child who comes because of toothache, and the still more unfortunate child who arrives with toothache.

Teeth should be treated as soon as the tiniest fault appears—often this early treatment will be all that is required to prolong the life of that tooth for the normal span, and keeping the deciduous tooth in place for that length of time is important. It is the best and easiest way to prevent mal-occlusion, for the deciduous tooth holds the space for the larger adult tooth which replaces it, and guides it as it wedges into its normal place in the arch, and this wedging-in is the necessary stimulant towards the growth of the jaws to adult size.

Deciduous teeth are normally all out and replaced by the permanent teeth with the loss of the deciduous cuspids at eleven, and replaced soon after by the larger adult cuspids which, wedging into



place, tighten up the contacts of all the teeth in both arches. This tight contact is one of the best safeguards against decay between teeth and should be carefully maintained. Regular visits to the dentist should be established and kept regularly. A visit every six months should be the longest interval and a visit every three months is decidedly better for the child who has a tendency towards caries.

SIX-YEAR-MOLARS

Special care must be given six-year-molars. So often, before any of the other permanent teeth have erupted, one or more of those molars is decayed. I believe the six-year-molars have been the cause of more pain and trouble than all the rest put together, and their loss is only the beginning of greater trouble. The importance of the six-year-molars alone is

reason for regular and frequent visits to the dentist. Because they appear so early, parents do not realize that they are permanent teeth and when a cavity appears feel no concern, and neglect them, until the child is brought to have these important molars extracted, and parents will hardly believe then that they are adult teeth, and will not be replaced. If the child is taken to the dentist regularly from four on, to have the deciduous teeth cared for, these important six-year-molars will not be neglected. The deciduous molars are not normally lost till eight or nine and in mouths free from caries are frequently retained longer with benefit rather than harm if dental visits are made regularly, for then each tooth can be extracted as required, to avoid delaying the eruption of the permanent tooth which replaces it; and so prevent crooked teeth.

HABITS

Children form habits so easily and there are some good dental habits which each one should be encouraged to form. That of daily tooth brushing is an important one, and to help him, the brush

should be the tiny child's size and soft, until at ten, the youth's size, and still soft, should be supplied. He should be reminded to clean his teeth well before going to bed, as night is the time of greatest decay; and again in the morning he should clean them to remove the thin but dirty film that generally forms during the night when tongue and teeth do no work. Each child should be taught to brush teeth from gum to incisal edge. Again each child must be watched so that the formation of any bad habit may be stopped, to prevent the harm which such habits sometimes do to mar the beauty of normal head and jaws. Do not allow a child to lie on his face. Growing bones are so soft that even this can bring an ugly change to the tiny jaws; a change which is soon very apparent if the baby favours one side more than the other. Do not permit a child, at an early age, to read or study with chin resting on his hand; in a surprisingly short time, this constant pressure pushes the chin back, and the most ugly of all mal-occlusions definitely appears. I have seen more than one corrected case of this type return to its worst deformity because the child has



Figure 1.

Normal.

Deformities.

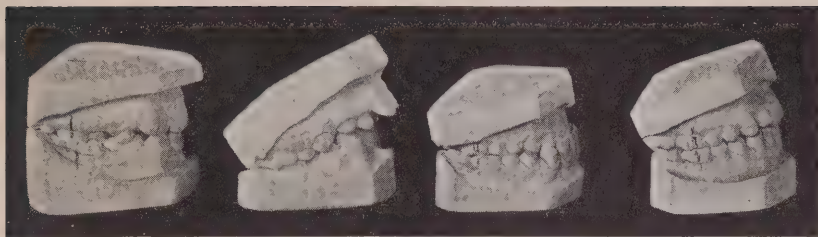


Figure 2.
Class I, II and III Malocclusions. No. IV, Normal.

continued or taken up this bad habit. Sucking thumb, fingers or even the tongue can all cause trouble.

ORTHODONTIA

Mal-occlusion is an ugly deformity of the lower face; the result of mal-formed or mal-posed jaws or a combination of both. Orthodontia is the science which corrects these deformities. Many people believe that orthodontia straightens crooked teeth and nothing else. Crooked teeth are a symptom, usually, of only one type of these deformities, but the uglier types often have teeth which are straight enough, but the wrong relation of teeth and jaws causes a far more noticeable ugliness. An ugly profile is a safer guide: it is apparent in everyone who needs orthodontia. (Fig. 1.)

An artist's gauge—"the line of beauty"—is the imaginary straight line that can be drawn from forehead to chin on any and every normal head, and only normal heads can have any pretence to beauty. If this line is distorted; has to be bent a long way in, or a long way out to touch the chin, there is ugliness; and in a child's head, the ugliness becomes deformity as it grows to adult size. A line from lobe of ear to base of nose is the dividing line; above it the head develops normally; below it the deformity increases as the contrast shows the parts out of balance. However the deformity

need not remain to disfigure the child throughout his life, for orthodontia corrects the wrong relation of both teeth and jaws, stimulates the growth of the undeveloped parts, establishes normal occlusion, and straightens crooked teeth. If treatment is early and correction completed during the time of greatest bodily growth, all trace of the deformity disappears. Treatment much later, even for the young adult in the twenties, brings a very satisfactory result, and much joy to the victim who has found the deformity too great a handicap in the work or profession he has already chosen.

CLASS I

There are three classes of these ugly deformities:

Class I (Fig. 2) is the type of mal-occlusion noticeably ugly because both jaws are mal-formed; both upper and lower are too small; out of balance with the rest of the head, which is normal. This is the only type of mal-occlusion where crooked teeth are always present. They are crooked because the jaws are too small; or else the jaws are too small because the teeth are crooked. But we believe the cause of this Class I mal-occlusion is most frequently the too early loss of one or more of the deciduous teeth because of decay and before the adult tooth has developed far enough to be ready to be guided into place. The

space was lost, also the resulting stimulation to the growth of the arches, and the jaws remain baby-size, so the teeth erupted when and where they could. Each arch appears crowded with teeth, for they erupt in the arch, and both inside and outside, while often one or more remain impacted in the bone of the jaw. When the mouth is closed in chewing only a few teeth of the uppers strike, others in the lower bearing the constantly repeated shock of closure. These are overworked and are lost early from abuse; the others, not occluding, do no work and are lost just as soon from disease, for it is impossible for such a mouth, full of crooked teeth, to be kept clean and free from bacterial infection. Consequently early orthodontic treatment is needed. The treatment for Class I consists of gradually forcing each and every tooth in each arch into its own place and then retaining them, until heavy enough bone is reformed to keep them there. That is all that is required to stimulate the growth of arches and jaws to normal size and establish and secure normal occlusion, which maintains both cleanliness and mouth-health. It is not long before all trace of the deformity is gone.

CLASS II

Class 2 is a type of mal-occlusion which is an ugly combination of mal-formed and mal-posed jaws. The upper is elongated and very narrow with protruding upper front teeth and very high palate; while the lower jaw is far too small and pushed so far back that when the mouth is closed the lower front teeth are often an inch behind the upper front teeth. Frequently these lower front teeth bite so high up into the soft tissues of the upper palate that they make sore spots there and the tiny chin seems to disappear, closing right up into the upper jaw. Class 2 is the Gump-type and

I am sure we expect no beauty in Andy and Uncle Bim. Added to this ugliness, the victim usually has an appalling look of mental deficiency with an accompanying inferiority complex, which grows definitely worse as the normal development of the upper head magnifies the deformity of the lower.

The cause of this Class 2 deformity is very frequently found to have been thumb sucking. The constant pressure of the baby thumb on the front of the upper jaw has elongated it, narrowing it to the width of the tiny thumb, thickening the bone below the nose, and forcing it so decidedly forward that the deciduous front teeth have an ugly outward slant, which becomes even more exaggerated in the permanent teeth. At the same time this is happening to the upper, the knuckle of the tiny thumb has been pressed hard on the bottom of the chin, preventing any development of the lower jaw, and forcing it backward, this at a time when the bone is composed of pliable gristle. Soon the angle of the jaw is pushed back to form an ugly right, or the still uglier acute angle, instead of the long graceful obtuse angle of normal and beautiful heads. The pressure of thumb-sucking is heavy and long continued: try pulling the thumb out of the baby's mouth; it takes a real tug, and the thumb is almost invariably instantly replaced. The ugliness is in exact ratio to the length of time this bad habit continues, and mouth breathing, adenoids and enlarged tonsils are usually companion ills. The child is generally under-nourished and anaemic, starving for oxygen, for the constricted arch and high palate result in restricted width of nasal space, and the air the child gets through the mouth is neither warmed nor purified as it would be if breathed through the nose, so a child with a Class 2 mal-occlusion is generally delicate. Luckily, correction of the deformity results in a

general systemic improvement. Is it because "Love is blind" that parents do not realize the constant progression of the deformity until long after his companions have left the child in no doubt of it? More likely it is because the increasing ugliness is so gradual and so constant and they see it every day. It is the same in treatment; the change to normal is gradual but steady, and it takes so long that the extent of the deformity is forgotten. One is glad of the plaster models of the case, with their record of the malplacing of the jaws. Profile photographs are also a help. Parents look at these records with interest and surprise and frequently exclaim "I had forgotten it was so bad!" This is particularly true of Class 2 cases, for treatment generally requires from fifteen months to three years. Frequently it is a member of the family or a family connection returning after an absence of a month or more who is appalled by the ugliness which has developed in the interim of absence and insists on immediate treatment. Most likely during the absence the stage had been reached where the upper teeth first began to rest on the lower lip, for the strong muscles of the lip soon send those upper front teeth much further out, at a greater angle, and the suddenly increased ugliness is startling. The correction of this deformity for both child and adult results in such an improvement in appearance that the mental reaction causes the inferiority complex to soon disappear.

The essential part of the treatment of every Class 2 case is bringing forward the lower jaw. Even if further correction is not possible so much has been done by this one thing, for it has restored the normal relation of the jaws and normal function of the teeth, that improvement continues. It is very rarely indeed that extraction of even one tooth from the upper arch is indicated. We call such a "mutilated case" and with good reason—

it is almost never necessary, and you cannot get normal occlusion after extraction; in fact, it is not good orthodontia. Generally teeth are straight in this type of case: almost invariably the upper cuspids have to be moved labially, though not far, and the upper anteriors must be slightly depressed, but the vital thing in this treatment, of every Class 2 malocclusion, is to bring the lower jaw forward.

CLASS III

In Class 3 cases we again have malposition and mal-development of both jaws. This time it is the lower which is over developed. The bone is too heavy, the mandible is too wide and always too long, for the lower teeth are outside the uppers, fencing them in. Because of this restriction, the upper jaw is abnormally small, for all development has been prevented; but the lower jaw continues to grow in ugly size, stimulated by every closure of the mouth. Chewing is impossible, and the victim with this deformity can only chop his food and swallows it too soon, till finally the overworked stomach rebels and the resulting systemic disturbances, both nervous and digestive, are so severe and long continued that the doctor is called. During the examination, he discovers the malposed teeth and assures the parents that the constant shock and irritation they cause is a contributing cause and most likely the only cause of these systemic disturbances and they will continue until the wrong position is corrected, and advises immediate treatment.

The essential in the correction of Class 3 cases is the bringing forward of the small upper, the correction of the abnormal relation of the two jaws. With this done and a slight overbite of the upper front teeth over the lower anteriors effected, the tiny upper begins to develop with every closure of the mouth,



Figure 3.

Three classes of deformities. Normal.

for the lower teeth now form the natural irritant outward and cease to be the force that restrained. Luckily for sufferers of Class 3 deformity, its treatment is the shortest of the three types. It is usually corrected in three or four months and there is no extra time needed for retaining it as in both Class 1 and 2, for the correct relation and the over-bite retain it normally immediately, and the systemic disturbances are soon no longer present. (Fig. 3.)*

Remember, then, that an ugly profile is a warning of the need of orthodontia, and that this treatment is frequently the one chance for beauty; for retaining teeth

for their normal span; and release from the irritation that results from mal-posed and mal-formed jaws.

Lovely teeth are both beautiful and useful. They need care and common sense in that care. Great is the reward in comfort, beauty, health and happiness; but the magnitude of these is seldom realized until one experiences some of the grief that neglect, decay or loss can bring. "Prevention" is the best watchword in the care of teeth, whether one is young or old, but the younger you start on this work for prevention the greater the reward.

The Roslyn, November 12, 1937.

If your practice is starting to come back, more dentures, more bridge work, more inlays, etc., do not send the children away to someone else; remember they are really and truly the backbone of your practice. It is the child patient that keeps your practice young and you have to keep on your toes to keep up with them. Cater to your child patients; give them the best you have and all they desire; it will pay both mentally and morally in the long run.—C. Wilford Wilson, D.D.S., Detroit.

The Development and Clinical Application of the Alkaline Local Anaesthetic Solutions*

by A. C. AHRENS, D.D.S., M.S.D., Lethbridge, Alberta.

DURING the past twenty-five years progress in dentistry has evolved around the rapid advancement made in the preparation and usage of the local anaesthetic solutions. Previous to that time this progress was retarded by the inability to obtain a suitable anaesthetic agent for operations requiring such procedure. What the immediate future holds is difficult to say, but it is within the realm of possibility to imagine, with our present knowledge of chemistry, and with research work in this field gaining more and more momentum, that simply by the application of an anaesthetic agent to the tissues we will be able to produce sufficiently profound anaesthesia to perform any operation necessary in the mouth. It may be that the administration of a drug by mouth will have sufficient analgesic or anaesthetic effect to permit dental work to be done with a minimum discomfort to the patient.

The trend of dentistry today, and where the most advance will be made in the future, lies in the field of chemistry. We are living in a chemical age and in every line of research the study of chemistry and its related subjects is bringing into view our most modern concepts of future civilization. In the field of dentistry the problems which have always been with us—I refer to the problems of dental caries and ulcerative gingivitis or pyorrhea—are still unsolved,

and will probably remain unsolved until our knowledge of the physio-chemical field is extended. It is only recently that medical science has turned its attention to the body chemistry to begin the next great cycle in medical history. The most useful advice that can be given to you men tonight, to give in turn to your sons, is that the study of chemistry is the means to an excellent education, in order to take advantage of all the opportunities to be had in the future, and that includes the future in dentistry.

GENERAL ANAESTHESIA

Local anaesthetic agents have now, more or less, taken the place of the general anaesthetic agents in the practice of dentistry. It is now generally conceded that all surgical work in the mouth which requires the use of a general anaesthetic should be done in hospitals or clinics where the facilities for such work are available. Today most schools do not advocate the use of a general anaesthetic in private offices. Their reasoning is sound, although before the advent of local anaesthetic agents, and of course up to the present time, there were and still are many men who have successfully administered nitrous-oxide-oxygen gas, and certainly with excellent skill and judgment. Since the discovery of the improved local anaesthetic agents, with better technique of injections, with the

*Read before the Calgary Dental Society.

At present Dr. Ahrens is doing post-graduate work at Guy's Hospital, London, England.

known value of premedication, and with more stringent laws governing the use of general anaesthetic agents, there has resulted the gradual disappearance of the general anaesthetic agents in office practice. Many men who formerly used nitrous-oxide-oxygen gas have discarded it from their offices and by doing so have had a much more pleasant existence. Certainly there is less worry for the operator and much less concern for the patient's safety. On the other hand, it is not difficult to think of many cases where general anaesthesia is indicated, and must of necessity be administered. Where the cost of hospitalization is beyond the means of the patient the problem of administering a general anaesthesia is sometimes a difficult one. In this respect let me suggest a method that has been used successfully by a prominent dentist who has discarded gas from his practice. When it is necessary for the patient to have a general anaesthetic he has made arrangements with a hospital whereby the patient is admitted for a period of twenty-four hours, receives all preoperative and postoperative care, and has the anaesthetic administered, all for the sum of five dollars. This arrangement is made in a large city where the cost of hospital care is higher than in a smaller community. I believe it would be possible for any dentist to make similar arrangements with a hospital in cases where general anaesthetics are necessary. At the same time I question whether gas anaesthesia can be administered in a private office at a lower cost and in conformity with good office management. The fee charged by the dentist must be added to the hospital cost.

PROCAINE

The discovery of procaine, or novocaine (the terms are synonymous) by Einhorn in 1905 led to rapid advances in dental procedures. Previous to that

time Koller in 1884 had discovered and used cocaine hydrochloride as a local anaesthetic agent, but with only varying degrees of success. The toxicity and instability of cocaine hydrochloride had prevented its usage from becoming universal. Since procaine was discovered the cocaine derivatives have been discarded and the acid procaine hydrochloride solutions have been used extensively and with a good deal of success. Recently and after several years of research there has been developed the newer alkaline solutions of procaine HCL, and as well, the alkaline procaine borate salt. The present trend appears to be increasingly favourable to these newer alkaline solutions.

Research work on local anaesthetic solutions was undertaken because it had been evident to careful clinical and laboratory workers interested in the development of local anaesthesia, that a local anaesthetic agent should be developed wherein the toxic element and irritating properties of procaine HCL would be reduced, or if possible, eliminated. While it may be maintained that any solution like procaine HCL, having been used for so long a period and with apparent success, is a fairly satisfactory vehicle, to careful observers, there has been much room for improvement. Most of this research work in the United States originated at Northwestern University Dental School and the main substance of this paper is a review of the literature that has been written on this subject, and in many instances direct quotations are taken from this literature.

CHEMISTRY OF PROCAINE

It will be necessary to give a very brief review of the chemistry and pharmacological aspects of procaine in order to familiarize ourselves with its action. Procaine is the base of practically all local anaesthetic agents used today. It is an alkaloid and by itself cannot be used

A. C. AHRENS

as an anaesthetic agent because of its insolubility in water. In order to obtain a preparation of procaine which is soluble in water it is necessary to use a procaine salt. If any acid, such as HCL acid, is added to procaine, the base and the acid combine to form the salt, in this case procaine HCL. It is this salt in solution that has been used in local anaesthetic solutions for many years. This procaine HCL in solution has an acid reaction. For years it has been known that an acid solution was not the proper vehicle for a local anaesthetic agent, but as it was necessary to have an acid solution to keep the solution stable over a period of time, and more especially because the epinephrin content needs an acid solution to prevent its disintegration, it was felt that there was no other immediate answer to the problem, and consequently this acid anaesthetic solution, procaine HCL, was considered the most satisfactory one available.

ALKALINE SOLUTIONS

The discovery that if procaine was combined with a weaker acid, for example boric acid, the resultant salt in solution would have an alkaline reaction and was more effective as an anaesthetic agent, led to the commencement of this work on local alkaline anaesthetic agents. The alkaline solutions which we are mainly concerned with tonight and which are replacing the acid solutions formerly used in dental practice are procaine borate and procaine HCL with sufficient salts to raise the pH or hydrogen ion concentration above 7.

The important thing to remember, and which apparently is concerned with, or is the cause of, the difference in the two types of anaesthetic agents, i.e., the acid



and alkaline solutions, is the hydrogen ion concentration of salts in solution. It might be stated that the pH is a function representing the power of the hydrogen ion as distinguished from the total concentration of acid. Water having an equal number of H (acid) ions and OH (alkaline) ions is considered as neutral, with a pH of 7. Any acid solution has a pH below 7, while an alkaline solution has a pH of over 7. It is obvious because boric acid is so weak and HCL acid so strong, a solution of the salt of boric acid will be much less acid, or will have a higher pH. Tests show that procaine HCL has a pH around 5.5, definitely acid; while the procaine borate has a pH of 8.4, definitely alkaline. Exactly why the pH plays such an important part in the effectiveness of anaesthetic solutions is not definitely known. In all in-

vestigations conducted at Northwestern Dental School, under the direction of Freeman, Clarke and Benedict, it was concluded that the procaine base was in no way involved, but that apparently the difference in the hydrogen ion concentration was the chief explanation of the difference in the two solutions.

While experimental work on the alkaline solutions was going on in this country, Fischer in Germany discovered that the alkaline solutions used in local anaesthetic agents produced much less tissue irritation, and as well, increased the speed of the anaesthesia. Fischer advised that only freshly prepared solutions should be used. In this country, at Northwestern Dental School, the alkaline solutions were being tested in every conceivable way and thousands of clinical tests were made. Solutions of the acid procaine HCL, with varying amounts of sodium carbonate added to bring the pH above 7, were used, and the results tabulated. It became increasingly apparent that alkaline solutions had the properties of quicker anaesthesia and less tissue disturbance to a much greater extent than the acid preparations.

How a local anaesthetic agent reacts on the tissues to produce anaesthesia is not definitely known. There are many theories as to its action and the most commonly accepted theory is that the solution dissociates into procaine and the resultant acids. The procaine is absorbed by the lipoids of the nerve cell, either by a reversible precipitation or a coagulation of the colloids, and causing a temporary loss of function of the nerve tissue. As nerve tissue is composed chiefly of lipoids of fatty tissue, the reaction seems to be one concerned with a breakdown of this tissue.

EPINEPHRIN

The difficulty at the present time with the alkaline solutions is their unstability

in solutions, and the chief reason for this unstability is because the epinephrin in an alkaline solution oxidizes very quickly. Epinephrin is an important drug in the preparation of a local anaesthetic solution. It is the active principle of the suprarenal glands and was one of the first hormones to be isolated. It is now prepared synthetically as the salt, epinephrin hydrochloride. In solution it has a pH of 3.3 and when this drug is added to already acid procaine HCL there is a further lowering of the pH. In an alkaline solution, such as procaine borate, there is an almost immediate oxidation occurring with loss of stability to the solution. Fischer claims that epinephrin in stock solutions increases the toxicity of the solution, whereas in freshly prepared solutions this toxicity is reduced. Because epinephrin oxidizes in an alkaline solution it is the main obstacle in the preparation of the alkaline local anaesthetic solutions.

Epinephrin is considered the most powerful alkaloid drug known, including strychnine, which reacts on the nervous system. It stimulates the sympathetic nervous system and acts as a vasoconstrictor, decreasing the size of the blood vessels and increasing the blood pressure. Individuals in a highly emotional or nervous state have an increased flow of adrenalin, while in cases of extreme terror or fright there is a decrease in the amount of adrenalin secreted from the glands. There is a consequent fall in blood pressure and usually fainting or collapse occurring. Some individuals have an abnormal flow of adrenalin at all times and it gives them the characteristics seen in the extreme energetic type, and usually having high blood pressure.

The amount of epinephrin required to make a 1-30,000 concentration is one drop or one minum for every 2 c.c. of solution. In the average dental operation

4 to 8 c.c. of solution is used, which means from 2 to 4 minims of epinephrin. The ordinary dose intravenously or intramuscularly is from 5 to 15 minims. Thus there is a wide margin of safety in dental injections, in comparison with the amount used in cardiac embarrassment, low blood pressure, or bronchial asthma. Nevertheless there is considerable reaction occurring in some people. An increased blood pressure and an accelerated heart action occurs almost instantaneously by reason of the rapidity of resorption. Because of the physiological effects the dosage of epinephrin should be kept at a minimum. It should be stressed here that the alkaline solutions require as much epinephrin as the acid procaine HCL. Epinephrin should never be administered to individuals with toxic goiters.

BUFFERING THE SOLUTION

In addition to the procaine and epinephrin, anaesthetic solutions contain additional salts, either for the purpose of buffering the solution, or to make the solution isotonic. The term "buffering" is constantly heard in local anaesthetic phraseology. Buffer salts are certain salts such as mono-acid or di-acid sodium phosphates or sodium bicarbonate, whose presence in solution tend to hold the pH constant in spite of the addition of more salts or acids to the solution. Manufacturers usually use these salts to excess in their solutions to keep the pH at a constant level, and it has been objected to on the grounds that the blood has more difficulty in bringing the solution to its own pH. Theoretically it would appear that when appropriate salts are added to a solution, whereas its pH value is maintained at a slightly higher pH than that of the blood, that solution would be satisfactory as a local anaesthetic vehicle. Any other pH should not be satisfactory. But there is much work

to be done on buffered solutions before that is definitely settled.

The vehicle to which the procaine, epinephrin, and salts are added is sterile distilled water. To make an alkaline solution using the procaine HCL-epinephrin tablets the vehicle must be alkaline. This vehicle is easily prepared,—for example, 1 liter of sterile distilled water and 1 gram of sodium carbonate added to make a .1 per cent solution of sodium carbonate. This vehicle may be kept as long as it is required, and all that is necessary is for the tablets of procaine HCL-epinephrin to be added to make the percentage strength required. With the procaine borate-epinephrin tablets only sterile distilled water is necessary.

FOUR FACTS

Freeman brings out four facts which appear to be thoroughly proved and which have a practical importance in the use of local anaesthesia. These are:

1. Procaine HCL which is normally acid in solution may be made more rapidly effective and more satisfactory for local anaesthesia by the addition of sufficient alkali to raise the pH to approximately that of the blood.

2. Procaine borate which is normally alkaline in solution is a safe, effective, and satisfactory anaesthetic agent, having some definite advantages over procaine HCL.

3. Any local anaesthetic of the procaine type which is alkaline in solution is unstable when combined with epinephrin and cannot be satisfactorily prepared and kept in stock solution.

4. Routine methods of procedure in the dental office for the preparation of the fresh solution may be developed whereby the preparation of the fresh solution is not laborious and requires no more time than the use of the stock solutions.

To clear up any misunderstanding of

the three solutions mentioned in this paper we will review them once again, before discussing their advantages and disadvantages.

1. The anaesthetic solution which most dentists have been using and which is sold on the market as either the procaine HCL-epinephrin tablets, or as the solution already prepared and sold as carpules or ampules. It is procaine HCL, having an acid pH in solution, and is used chiefly because of its stability in solution.

2. The procaine borate-epinephrin tablet, which in solution with sterile distilled water has an alkaline pH.

3. The anaesthetic solution which consists of the same procaine HCL-epinephrin tablets but with an alkaline vehicle used (.1 per cent sodium carbonate) to make a solution with a pH above 7.

To quote direct from articles by Freeman and Clarke, it is found that "the alkaline solutions are more rapid in action, the anaesthesia produced is equally profound, and the local tissue disturbance occurs less frequently than with the acid solutions. Whether the increased efficiency is due to the pH we cannot say, and what other factors may enter into the complicated physio-chemical reactions resulting in more rapid induction of the anaesthesia cannot at present be fully answered. We can say with considerable assurance that raising the pH of procaine by the addition of an alkali does have a marked effect on the clinical results obtained; the time required in the induction of anaesthesia apparently being definitely related to the pH of the solution.

INDUCTION TIME

The induction time in mandibular injections shows an interesting contrast to the acid solution. With the acid solution the generally accepted time is

around ten minutes, although more rapid induction is sometimes obtained. The addition of the alkaline salts to the procaine HCL to raise the pH to 7 or 8, results in an average induction time of four minutes, and if the procaine borate is used, the induction time is almost instantaneous. For example, if from one to two minutes are consumed in giving the injection, the operation can proceed almost immediately.

OBJECTIONS AND ADVANTAGES

Two objections may be raised to the alkaline solutions. One is that the duration of the anaesthesia is approximately three-fourths that of the acid solutions. This is no serious objection as there are few occasions when the anaesthesia is not sufficient for the average operation. There are always occasions when no matter what type of anaesthetic agent is used it is necessary to reinject. And as the alkaline solutions are considered as being only one-half as toxic as the acid solutions, there is not the same danger in injecting more of the solution. In case larger quantities of the solution are necessary it seems to be an advantage to use the alkaline solutions. A 3 per cent solution can be used equally as safely if a more profound anaesthesia is required.

Another objection, and at the present time the most serious to men who prefer solutions already made up, is the fact that fresh solutions must be made for every operation. This is not an unmixed evil, since it is the opinion of all authors on local anaesthetic solutions that the freshly prepared solutions are distinctly preferable to any stock solution. Actually it consumes no more time to prepare a fresh solution for each case than it does to prepare the hypodermic instrumentarium for the use of the stock solutions, provided that they, too, are sterile.

One advantage of the freshly prepared solutions that I have failed to mention is

the cost factor. It is estimated that there is a saving of four-fifths of the cost by using the freshly prepared solutions, and that means a saving of a considerable sum over a period of years.

METHOD OF PREPARATION

Freeman has outlined a method for the preparation of the fresh solutions. The Leer syringe is used in all injections. They can be bought cheaply in quantities in the 3 or 5 c.c. size. They are easily dissembled, the slip on needle is most convenient, and they are of light weight which permits a more delicate injection technique. The syringes can be numbered for convenience in assembly. They are boiled and wrapped in sterile gauze. The needles are kept boiling in the sterilizer and are consequently always ready.

The solution is prepared by placing measured amounts of the vehicle in small test tubes in a rack specially designed for this purpose. The mouths of the tubes are closed with cotton and the entire rack and contents are sterilized in an autoclave. If no autoclave is available, the vehicle can be boiled in the individual tubes and the cotton plug flamed for sterilization. In this sterilized vehicle there is nothing to deteriorate and it may be kept safely until used, as long as the cotton stoppers are undisturbed. All this preparation can be carried out by the assistant.

When the injection is to be made the following procedure is carried out, and accurate time tests have demonstrated that one minute is sufficient for the chair preparation. The syringe is removed from the cabinet and unrolled from its sterile gauze wrapper. The proper number of tablets are placed on this sterile gauze, the cotton stopper removed from the test-tube and the tablets are dropped into the vehicle. The solution is then gently warmed over a flame to bring it to body temperature and to assist in dissolving

the tablets. The syringe without the needle is inserted in the solution and rapidly filled, the needle is removed from the sterilizer and placed in the syringe, and the injection is made.

The entire procedure can be carried out very quickly, and all steps are taken care of by the assistant with the exception of filling the syringe and placing the needle.

The points of advantage in this plan may not appear to be important to the operator who has used stock solutions without dissatisfaction, but the preparation of local anaesthetic solutions and armamentarium requires the most careful surgical asepsis of all procedures in the dental office, and the desirability of the materials employed for hypodermic injection should be scrutinized more carefully than for any other drug administered.

The object of this paper is mainly to familiarize you with the work that has been accomplished in the alkaline solutions at Northwestern Dental School and as I have mentioned before, the subject matter has been assembled from the articles which have already been published by the men who have been interested in this field. The author of this paper desires that all credit be given to the rightful persons.

REFERENCES

- 1—H. C. Benedict, Charles W. Freeman, Stanley W. Clarke.
STUDIES IN LOCAL ANAESTHESIA* J.A.D.A.
1932. p. 2087.
- 2—Stanley W. Clarke—THE ALKALINE SOLUTION IN LOCAL ANAESTHESIA. Abstract—read before the fifth annual meeting of the American Dental Society of Europe. July 31 to Aug. 3rd, 1935.
- 3—Northwestern University Bulletin—Spring Quarter, 1936.
STUDIES IN LOCAL ANAESTHESIA.
- 4—Lectures by Drs. Clarke and Freeman, 1936-37.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office," 314 Somerset Building, Winnipeg.

The Other Fellow

by PHILOSOPHER

WHY is it that you never see or hear of a wealthy dentist and seldom see or hear of a well-to-do one? That is a question which has puzzled not only myself, but everyone connected with the practice of dentistry. Here is a group of men holding an absolute monopoly on a certain type of service, protected in this monopoly by stringent laws and the force of public opinion, and yet deriving from their profession a very low remuneration in comparison with similar lines of endeavour. Some say that it is poor business ability but in this I only partially agree, as I maintain that a dentist exercises just as shrewd business ability as any like group of men so far as investments, etc., are concerned. But where I do wholeheartedly indict him is in the field of business ability as it pertains to his own practice. In other words, his fees are entirely too low in comparison with his cost of doing business, cost of living, and the time, skill and money required to become a dentist. This naturally brings to mind *why* are these fees so low? My answer is first (and most important): Lack of co-operation with his fellow practitioners and second: Patients, yes, p-a-t-i-e-n-t-s.

If there is one crying need in dentistry today it is for co-operation among the dentists. We have the above-mentioned

monopoly but are not farsighted enough to realize the benefits that could be ours for the asking. In this day of unionization we can surely take a lesson from the union man on the benefits of organization and co-operation among men identified in the same line of endeavour. And yet our problem is so simple that it should not take a group of dentists in any one community more than one evening to get together and formulate a schedule of fees which would allow everyone to make a decent income from his profession. Yes, I know that this plan has been tried many times, and in many cases it has failed due to lack of co-operation between the interested parties, but that still does not make the basic problem any more difficult. Speak to any dentist individually and he will admit that he is dissatisfied with his income, but broach the subject of meeting with his fellow dentists to formulate a plan to remedy the situation and he will shy away violently. Why? Mainly because he feels that the Other Fellow will not keep his agreement and the Other Fellow feels that he will not keep the agreement, with the result that the vicious situation still persists.

Patients have more to do with lowering the schedule of fees than most of us realize. Call it shrewd buying if you will, but by playing one dentist against

the other and telling one dentist at what amount the Other Fellow has estimated a contract, has saved the patients an untold amount and of course has cut the dentist's income a corresponding amount. The sad part of it is that the dentists fall for the deception, accept the patient's word as true, take contracts at a lower fee and blame the Other Fellow for the necessity of doing so. How simple it would be under an existing agreement for these dentists to telephone one another, and how surprising it would be, the number of times the patient would be found to be wilfully misrepresenting the facts, or mistaken on the type of restoration for which the lower fee was quoted. Let me cite a recent case in my own practice to illustrate the point: A lady presented herself asking for an estimate on a three-tooth bridge, and upon being told my fee, expressed great surprise and said, "Dr. Other Fellow offered to construct that bridge and one just like it above for the same figure you ask for one bridge. Why the great difference in prices?" Upon being asked if she was sure the same type of bridge was involved or if she did not misunderstand Dr. Other Fellow, she indignantly replied that she was sure as she had written down his figures. So I dismissed the patient with the remark that I could not compete with such figures and went into a session (with myself), cussing and discussing Dr. Other Fellow, a supposed stickler for fair fees, and none of my thoughts were complimentary. The next day I saw Dr. Other Fellow and related the case to him with the result that he showed me his record sheet and his estimate was exactly

the same as mine. Now instead of regarding Dr. Other Fellow as a chiseler, etc., I find we are in perfect accord and the way is paved for handling any future situation; so I say, do not take too much stock in what your patients tell you; co-operate with your fellow dentists and most of the ills of dentistry will disappear.

This is an era of rising prices; food, clothing, and all other items have risen and your cost of doing business has joined the procession. How by any line of reasoning can dentists fail to raise their fees in a corresponding degree? And yet too many of the profession are charging the same fees with the expectation that increased business will close the gap. Poor business ability? Yes, and then some. I am not an advocate of exceptionally high fees; all my remarks refer to the *average* fees which, in every survey that I have ever seen, are abominably low. Boost this average fee and stick to it regardless of petty gossip about the Other Fellow and the seeming truth of some of your patient's statements, then you and your colleagues, as well as those who follow you in the practice of dentistry, will be a happier, better satisfied group of men. Gentlemen, it is in your hands; the problem is clear, the solution simple. Will you meet the issue or will you continue in the same old rut expending plenty of energy in moaning over the shortcomings of dentistry, but refusing to lend your support in correcting these shortcomings?—*Editorial from The Jl. of the Indiana St. Dental Association, Oct., 1937.*

"There is no better way to advertise the fact that the dentist is slipping than by allowing his equipment and office to deteriorate."

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM MANITOBA:

For a number of years I have given dental prophylaxis to a young woman patient and have examined her mouth regularly about three times a year. She has a tendency to gingivitis and for this reason special care has been taken in the giving of prophylaxis, about twenty-five or thirty minutes having been spent on each treatment. A fee of three dollars has been charged which I have considered fair.

This young woman was married about a year ago, and the last time she was in stated that the dentist to whom her husband goes only charges him one dollar for prophylaxis and she wondered why there should be such a difference in fees.

I would appreciate hearing from several men as to the best way of dealing with this problem which seems typical of many situations arising in daily practice.
—*Doctor X.*

REPLY FROM BRITISH COLUMBIA:

Three dollars seems to be a very moderate fee for thirty minutes of professional service. A reply such as follows would seem appropriate:

"If you feel that your husband's dentist will give you as much time and as good service as I have given you, at a lower fee, and that you will be better satisfied, then it is your privilege to change."

There is no other dental service which gives more for the fee involved than prophylaxis. It helps to prevent dental caries as well as disease of the soft tissues. We should emphasize the importance of the operation, set a fair fee for the time spent and rise above the bickerings of the shopper.—*Emery Jones, New Westminster.*

REPLY FROM BRITISH COLUMBIA:

"My dear lady, I have always given you a real service for the fee I have charged you. Of course one just gets what one pays for and if you prefer the type of service rendered by your husband's dentist you are at liberty to go to him." If the Canadian Dental Association could only suspend the licences of these \$1.00 prophylaxis specialists the dental profession would be better off.—*W. J. Gibson, Victoria.*

REPLY FROM ALBERTA:

I am glad, Mrs. B., that you have been frank enough to discuss this matter with me. Naturally you do not wish to spend money for which you do not receive an adequate return.

For a number of years I have been looking after your mouth health. While it has been necessary from time to time to place fillings, a much more important service has been given you. No matter

how good teeth themselves may be, if the bone and gum tissue supporting them are not kept healthy, there develops an infective condition around the teeth which surely becomes a source of focal infection. This condition is a more or less serious danger to the general health. Also at a fairly early age the teeth are lost.

The majority of forty-five-year-old people in this country have advanced pyorrhea of some of their teeth, or have lost a number of them from this disease.

Prevention requires skilful work and constant watchful care. With the knowledge of the tendency of your gum tissue to depreciate and the picture in my mind of the mouth of older patients who have not had regular careful care, I have used my best efforts so that you may for the longest time avoid this almost universal condition.

For this skilled and important work to prevent trouble, discomfort, and expense in later years, a fee must be charged that gives some return above office expenses. It may be that your husband has a different type of mouth condition which does not require such treatment, but I can assure you that a careful service of this sort is necessary for you to maintain a healthy condition of your mouth in the future.—*John W. Clay, Calgary.*

REPLY FROM SASKATCHEWAN:

The problem stated regarding a fair fee for prophylaxis services is a common one for most dentists. The use of diagram charts showing the formation of calculus on the teeth under the gums and the inflammation and disease which follows is usually sufficient to impress the patient so that a desire is created to maintain a healthy mouth.

The dollar prophylaxis is necessarily a very superficial treatment. A thorough prophylaxis with the benefits to the gums

will convince the patient that a fair fee is deserved, and cheapest over a period of time.—*W. R. Watchler, Yorkton.*

REPLY FROM ONTARIO:

This seems to me another case of the erroneous judgment by the laity of dental fees, and the very erroneous policy it pursues of comparing the fees of two or more dentists for services which are impossible of comparison. The prophylactic care of a mouth depends wholly on existing oral conditions which in no two patients are identical. In treatment of these conditions the time element enters in to a marked degree, which fact of course must influence the fee.

Being decidedly opposed to a set fee for any individual type of dental service, which to my mind is not only unethical but unfair both to patient and dentist, the only opinion I can offer as regards this "problem from Manitoba" is that each dentist should conscientiously decide what his fee shall be, taking into consideration the duration of the treatment and the value of the service to the patient, tempering his decision by wisdom as in all courses of action.

It seems to me that a very good way to preclude dissatisfaction on the part of the patient would be for the dentist to verbally quote his fee at the conclusion of the appointment, this to be done tactfully of course. If the patient is going to react unfavourably this is "the accepted time"; the dentist is then in a position to state his case and protect himself. A sane and sound explanation of facts will go far in bringing the patient's concept of the service up to a standard which the dentist knows to be a just one. I make this suggestion only because it does seem to be necessary for dentists to conjure with the laity's proneness to draw comparisons in dental fees as well as its seeming resistance to inconsistencies

among the profession in fees for services which are the same in name only, and it occurs to me that the best time for all concerned is immediately after the service is rendered, should it present itself at that time.—*John A. Bothwell, Toronto.*

REPLY FROM ONTARIO:

This problem seems to necessitate the patient's being made to realize that your treatments mean much more to the health of the periodontium than do the treatments of the dentist who charges only one dollar for prophylaxis. It is doubtful if he removes, or even looks for, subgingival calculus—he could scarcely afford to do so for that fee. If all the subgingival calculus is not carefully removed, the gingivae can not be kept free from inflammation with its ensuing lesions.

Patients observe very quickly the difference in technique, and, appreciating the conscientious service, are usually reasonable enough to pay willingly for the more thorough and more satisfactory treatment. Should a kindly explanation not convince your patient, then a few months under the care of the less thorough operator will be almost sure to have the desired effect.—*W. Y. Hayden, London.*

REPLY FROM QUEBEC:

The problem presented by Dr. X is one of those to which there cannot be one definite final answer. If dentistry

was something that was always of the same blend turned out in one pound packages, with the carton always the same shape and always tied with the same coloured ribbon, there might be an answer.

There are many arguments that can be put forward in a case like this if it is necessary to argue; for instance, two different people can each buy a house, a car, a suit of clothes, a hair-cut, a cigar, a box of candy, a seat in the movies, or almost anything under the sun and pay totally different prices for them and yet in speaking of them the articles appeared to be the same. The true value was not on the surface. How much more so is this true when one is speaking in terms of professional service!

In this particular case I do not think I would try to argue much. My only reply to the young woman would be, "If you feel that you can get elsewhere what I am giving you for one-third of what you're paying me, you're foolish not to go and get it. I would."—*Edward T. Bourke, Montreal.*

REPLY FROM QUEBEC:

I would give a simple explanation of the time charge to cover overhead and salary, also draw attention to the limitation of production hours in dentistry. An explanation of the amount of time needed for prophylaxis for one patient as compared to another would also be helpful.—*J. C. Flanagan, Montreal.*

"We dentists need a guardian, an economic guardian. We spend valuable hours and a great sum of money in perfecting our service and technique, and yet, we deny ourselves the right to acquaint the public with our talent. Why let the press misinterpret our aims and ideals?"—Francis L. Goldin, D.D.S., in Oral Hygiene.

The Forum

● SOCIETY HEARS PETTENGILL FLAY SOCIALIZED DENTISTRY

A SEVERE scoring of those forces who insist that the socialization of the professions is the key to the solution of this pressing problem was given by Congressman Samuel B. Pettengill, of Indiana, who was the speaker at the opening General Session of the Midwinter Meeting of the Chicago Dental Society.

Before a packed audience in the Grand Ball Room, Representative Pettengill, in no uncertain terms, condemned governmental interference in such intimate relationships as those existing between patient and practitioner.

"There are few if any relationships," he said, "more individualistic than that between practitioner and patient. In the ordinary case the selection of the practitioner is free choice and on the other hand, the practitioner also serves without compulsion. The relationship is one of mutual confidence. It may be terminated by the will of either at any time. For these reasons it is natural to believe that in the medical and dental professions individualism will continue to find stout champions, both as doctors and citizens."

While admitting that there are questions which can only be settled by proper co-operation between the parties concerned, Mr. Pettengill vigorously defended the professions against the usual attack of being concerned only with the welfare of the practitioners.

"There are countless situations," he stated, "which can be reached only, if at all, by methods that go beyond patient and practitioners privately employed. We cannot be dogmatic in these matters.

Nor have the professions been dogmatic. Every group has a right to fight for its soup bone, but I do not know any class whatever which more wholeheartedly admits that the group—the profession, has no right to advance its own interest at the expense of the rest of society. If bankers, tariff lobbyists, labour organizations, veteran groups, etc., always correlated their claims with the rights of society as a whole as completely as is done by the practitioners of the healing art, this would be a better world—a far better world."

Representative Pettengill referred to the bill which had been introduced into the Congress of the United States some months ago and which attempted to hand over to the federal government complete control of the health professions. In discussing this bill, Representative Pettengill referred to it with the comment that "there has been much low thinking in high places."

"Senator Lewis says," continued the Congressman, "with what authority beyond himself I cannot say, that we are to have not 'state medicine' but 'federal medicine'; that every doctor must take out a Federal license, in addition to his present qualifications; that the profession is to be 'placed in the position of complete obedience' to the Federal law; that doctors must serve as 'citizens'; that their compensation is to be fixed by some board, which he piously hopes will not be 'political'; that this board shall also have the power to pass on the 'quantity and quality' of professional services, the number of patients you shall care for daily, as an example."

"Well, there you have state medicine. If that is it, I am against it.

"If the Federal government can fix the wage of the doctor, it can fix the wage of the manual worker, or the compensation of the farmer. There is something for union labor and the farmer to think about."

The speaker had no illusions about the federal practice of medicine or dentistry. In commenting on the entry of the government into the practice of the healing arts, the speaker said "that the need for state medicine is more apparent than actual, and second, that the results of practicing medicine and dentistry at public expense by political bureaus even among the very poor, is nothing to brag about."

"The fact is that most people could pay their doctors, if they placed their obligations ahead of their pleasure. The average American pays more for tobacco alone, more for candy alone, more for booze alone, to say nothing in the toll to gambling, extravagance, laziness, than he pays to his family physician, and many times more than he pays to his family dentist."

The speaker then pointed out that the system of state medicine shifted the economical burden involved from the shirker to the worker, and that it would allow those "to reap where others have sown."

In opposing the view that state medicine results in increased effectiveness in the fight against disease of all types, Representative Pettengill pointed out that the systems of foreign countries had been unable to accomplish such an improvement. He cited the death and morbidity rates compiled in this country contrasted to those achieved by other nations under a system of compulsory insurance or state medicine. The record undeniably placed the favourable balance on the American system.

The Congressman minced no words in

commenting on governmental interference with private enterprise. "It is the same government," he said, "that runs Washington that proposes to run you (the profession). It is this same government, running Washington, with crime, gambling and racketeering galore, that undertakes to tell every state, city, county, business, industry, railroad, bank, bus line, farm, profession and peanut patch in America how to run its affairs. If it were not so tragic it would be laughable. And yet the well-meaning people, believe it or not, want the Great White Father at Washington to take over every function of government and business in the nation."

Congressman Pettengill has achieved an enviable reputation in Washington as an advocate of constructive legislation. For twelve years, he has taken an active part in the affairs of the House and recently was a leader in the fight against the Supreme Court bill.—*Bul. Chicago D. Soc., Feb. 17, 1938.*

• PUBLIC DENTAL HEALTH PROBLEM

by JEROME H. TRIER, New York City

I WANT to go on record right now as saying that I am personally opposed to any dental health service which is planned, supervised or directed by anyone who is not, or has not been, engaged in the actual practice of dentistry.

Less than 25 per cent of the population of the United States has ever received any dental attention. This means that if our theories have been scientifically sound, the physical well-being and the health of at least 75 per cent of our population is being threatened constantly with the dangers that may follow neglected oral health. In New York City alone, there are approximately four and a half million people whose health is being undermined. We must find a way to provide necessary dental attention for those in need.

As soon as we realize that health is a requisite to life itself and that our profession is dealing with a matter which affects the total population and not our own personal welfare, just so much closer will we be to the solution of this great and alarming problem.

Our real problem lies in the fact that rich or poor, able or unable to afford dental service, a huge portion of the population faces physical and mental disability because of neglected teeth. This is an appalling fact and the responsibility of providing leadership and education is ours. From a practical point of view, it is obvious to us that dental service for the entire population of the United States is an impossibility for years to come. We need a practical plan. We can be practical and maintain dental standards for the public at the same time, and we intend to be practical.

Dentistry involves a completely different public health problem than does medicine. Although the importance of a proper interrelationship between the medical and dental professions cannot be over-emphasized because of the close and vital relationship between dental and general health, it is high time that the dental profession did its own thinking and formulated its own plans of meeting the future for the benefit of the public. Dental health is a dental problem and it belongs to the public and the dental profession. The medical profession has its own problems.

Since I do not commit myself to a program advocating a system of Health Insurance for the dental profession; and needless to say, since I oppose any socialistic plan of governmental control, I feel that something more than the present system is necessary.

I ask for your help. My sole contention is that the public needs something more in the way of dental service than it is receiving at the present time. For this

reason, I want the profession itself, to decide how to provide this service, rather than wait for anyone else to decide for it.

The dental profession has never failed the people of this country, and this is no time to begin! Let us not live in the past or feel secure in the present, but be ever watchful and thoughtful of the future!—*Excerpts from Incoming President's Address of First District Dental Society of New York.*—*N.Y. Jour. of D.*, February, 1938.

• DENTAL HEALTH EDUCATION

IT IS quite unpractical and useless to establish a council on dental health education unless we can offer it an attractive and reasonable program of work. At present, some of the publicity employed is, to be kind, a little childish. It takes no account of modern methods of advertising which have reached a high scientific and artistic level, and it is often no more than the dry-as-dust lectures only thinly disguised. The man who wishes to sell cigarettes tells you of their delights, or impresses upon you certain of their qualities—such as their non-throat-irritating advantages; implying, ever so suggestively, that all other cigarettes are far inferior and less delightful. But if the dental profession sold cigarettes its advertisements would probably be more on these lines:

"Tabacum, or tobacco, is the dried leaves of *Nicotina tabacum*, native to America. Properties mainly due to an alkaloid, nicotine, which, next to prussic acid, is the most rapidly fatal poison known. A powerful depressant, nauseant, emetic, diaphoretic and anti-spasmodic; is also narcotic and sedative, lowering arterial tension. We suggest one cigarette occasionally will do no harm."

—*Edward Samson, L.D.S.R.C.S., Eng., F.C.S., British Dental Journal.*
October 15, 1937.



Dental Health display in the window of the Robert Simpson Company, during Dental Health Week in Toronto.

• POTASSIUM CHLORATE IN DENTIFRICES

POTASSIUM chlorate has long been used as a constituent of mouth washes, gargles, dentifrices and extemporaneous preparations for oral conditions such as stomatitis and mercurial poisoning. Pharmacologic and therapeutic considerations have tended largely toward discrediting such usage, but the exploitation of pharmaceutical products containing large amounts of this salt, particularly dentifrices and gargles, continues nevertheless with an apparent disregard of the possible hazards to health. The Council on Dental Therapeutics will not accept any dentifrice for daily use which contains potassium chlorate. A. P. Richardson of the department of pharmacology of Stanford University School of Medicine recently reinvestigated the toxic potentialities of continued administration of chlorate for blood and tissues. Richardson points out that prolonged use of products containing potassium chlorate, which is a not uncommon practice, might result in sufficient absorption of chlorate, particularly when aided by frictional de-

vices, local lesions, such as ulcers and pus pockets, and other inflammatory states, to produce injurious effects on the blood, kidneys, liver and general health. This salt, Richardson therefore concludes, has no real place in the cosmetic armamentarium. A salt action, when desired, may be obtained with ordinary sodium chloride, which can be used virtually with impunity. The inclusion of potassium chlorate in the current edition of the Pharmacopeia deserves to be reconsidered in the light of these experiments.—*J.A.M.A., April 17, 1937, p. 1343.*

• THE PHYSICAL WELFARE OF THE DIONNE QUINTUPLETS

THEIR teeth are brushed twice a day and "pretend visits" to the dentist are carried out at intervals, so as to prevent any fear of the dental chair with its inevitable drill when the time comes for attention. There is a portable outfit in the home and one of the nurses makes use of this, acting in the role of dental surgeon.—*Doctors Alan Roy Dajoe and William A. Dajoe in the Canadian Medical Association Journal, November, 1937.*



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

NOVA SCOTIA



A. W. Faulkner, Halifax

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgcombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

Magazines for the Dental Reception Room

The old and torn magazines found in the reception room of the dentist have long been a standing joke among the laity. In many offices this practice still prevails. The outstanding offence to-day, however, is the tone of the reading material in many of our offices, even in the offices of some of the leaders of our profession. On the reception room table, we frequently see magazines which in the writer's earlier days would have been refused the privilege of the mails, and the sale of which would not have been allowed in any book store in Canada.

Conditions have changed since then, but not, unfortunately, for the better. When parents send their sons and daughters to the dentist, they do not wish them to read some "spicy" magazine, some borderline publication with immodest cover and still more questionable contents, stories of sin and degradation, or suggestiveness in its most subtle form, beautiful as may be the artistry of the publication. Whatever the taste and desire of the dentist may be in these matters; whatever he may think would be the type of book

and magazine which would attract many of his patients, I would make the appeal to him to banish from the office reception room all magazines which are in the slightest way questionable. This I am sure would accrue to the eventual good of your practice, and above all, would protect the good name of the noble profession of which you are a part. There are still many parents who are particular about what their sons and daughters read and who prefer to patronize a professional man of fine character and high ideals, and such people are among your very best patients. Why compel them to go elsewhere?

Books and pictures leave indelible imprints upon the minds of youth, and sometimes a wrong suggestion may be the match which lights the flame of questionable action. On the other hand, how many boys and girls, even from our poorer homes, those with apparently "no chance" in life, have been started on successful careers by the helpful suggestion obtained by reading some good book. What kind of career would suggest itself from the pictures and questionable stories found in many of our modern magazines which exploit almost every possibility of vulgarity and suggestiveness.

It is said that, at the age of five, Voltaire read a skeptical poem, the impression of which influenced his whole life, and made him the great scoffer of his century. Many men and women in later life would give half their possessions to obliterate from their minds the impression which certain pictures and books made upon their lives during the formative period.

We are living in a fast-moving, modern age, and I like to think that offences such as I have named have crept into the practice of our profession like a thief in the night, almost unawares, rather than by intent. However, the menace is there and it must be dealt with; and so I appeal to the dentists of Canada, to whom this article applies, to do some house cleaning, and do it now.

*"Books are strange things. Although untongued and dumb,
Yet with their eloquence they sway the world;
And, powerless and impassive as they seem,
Move o'er the impressive minds and hearts of men
Like fire across the prairie. Mind sparks,
They star the else dark firmament."*

The solution of this paradox—a growing intellect and a stationary or shrinking personality—is the most important problem confronting our educational system today. For upon its solution depends individual happiness.—Henry C. Link, Ph.D.

BOOK REVIEWS

Surgical Diseases of the Mouth and Jaws—By Earl Calvin Padgett, B.S., M.D., F.A.C.S., Associate Professor of Clinical Surgery, University of Kansas School of Medicine, Kansas City, Kansas; Associate Professor of Oral Surgery, Kansas City Western Dental College, Kansas City, Missouri. 807 pages, 334 illustrations. Cloth, \$11.50. London and Philadelphia: W. B. Saunders Co., 1938. Canadian Agents: McAlinsh & Co, Limited.

In the preface of the above text-book, the author expresses the hope that his publication will be of value to the dental student, the medical student, the general dentist and physician and the surgeon. In the opinion of the reviewer there is no doubt that these hopes will be realized. Dr. Padgett, who is a graduate of medicine, has written a very complete text covering the subject as indicated by the title. In certain chapters, particularly dealing with extraction or straightening of teeth, he has received certain assistance and advice from members of the dental profession. The reviewer was particularly interested in reading this book, as it would appear to him that the author has made a special effort to make it appeal to members of the dental profession.

In the opening chapters, the author deals with anatomical considerations, diagnosis, asepsis and complications of wounds. This is followed by a thorough discussion of injuries to the bony framework, such as fractures of the alveolar process, the maxilla, the mandible, or both. Fixation and treatment of fractures are also discussed.

Some space is devoted to the discussion of the removal of teeth and also to the correction of malocclusions of the teeth. The author does not attempt to cover these subjects fully but does discuss some of the important points pertaining to same.

A considerable portion of the text is devoted to the discussion and treatment of harelip, cleft palates and certain benign and malignant neoplasms of the soft tissues. Irradiation is discussed under the treatment of the latter disease.

There are many conditions discussed in this book which the general dentist may not meet in his practice but about which he should have a general knowledge. This text is particularly recommended to the dental student and as a book of reference in the library of every dentist. The printing, cuts and general format of the book are good.—*Stephen A. Moore.*

The Treatment of Clinical and Laboratory Data—By Donald Mainland, M.B., Ch.B., D.Sc., (Edin.), Professor of Anatomy, Dalhousie University, Halifax, Nova Scotia. Published by Oliver and Boyd, Limited, Tweeddale Court, Edinburgh, Scotland, 1938; 340 pages with 23 text figures; Cloth; Price 15/ net.

This book has been written as an introduction to statistical ideas and methods for medical and dental workers. The author states why and how adequate allowance should be made for chance in all observations and judgments in medicine and dentistry. The primary object of this book is to help medical and dental clinicians who wish to benefit from their own observations and from a critical reading of the statements of others. It is pointed out that in even the smallest piece of

research it becomes essential to properly interpret results, estimate the amount of experimental error, and above all plan the experiments so as to extract the maximum of legitimate information from a small number of data. There is the problem also of the proper treatment of data. All of these requirements are most clearly outlined and discussed in this very helpful treatise on this important subject. Even the casual survey of the volume impresses one with the fact that the proper time to ask advice in the treatment of data is when the observations or experiments are being planned, not after the results have been accumulated. This is a book which should commend itself to all research workers and to all those who wish to be able to draw the proper conclusions from clinical observations.—*M. H. G.*

NEWS FROM THE PROVINCES

QUEBEC:

Montreal Dental Club

Dr. Thomas K. Marshall and Dr. Frank Martin of Toronto were guest clinicians of the Montreal Dental Club on February 18th.

Dr. Marshall addressed the members on Deciduous Dentistry at 4:30 in the afternoon, and his paper was exceptionally well received. His presentation showed meticulous care in its preparation, and brought forth much constructive discussion.

In the evening Dr. Martin presented a clinic on his modified Tuller Technique for full denture impressions. This talk was also very enthusiastically received and many favourable comments upon his moving picture film were heard. Dr. Martin is a real dental teacher and the members of the Montreal Dental Club profited greatly by the visit of these Toronto gentlemen.

Death in Dental Office

Russell Ellyett, aged 21, died in a Montreal dental office February 17, from syncope following an anaesthetic for the extraction of five teeth.

The young man's death was most unexpected as the patient had been examined by both dentist and physician before the operation and found to be in sound condition.

NOVA SCOTIA:

Mouth Health Campaign

At present a province wide campaign is being conducted by Dr. Harry S. Thomson, Field Secretary of the Canadian Dental Hygiene Council, under the auspices of the Department of Health and the Department of Education, Province of Nova Scotia, in co-operation with the Nova Scotia Dental Association.

About one year ago the organization work was begun and was completed January 31, 1938. The province was divided into zones enlisting capable, energetic, dental representatives for each zone. Dr. Harry S. Thomson is being assisted by members of the Nova Scotia Dental Association, to plan and work with medical officers and nurses of the Department of Health, supervisors and teachers of the Department of Education; also representatives

of the various service clubs and welfare organizations of the province, to make this effort a success.

The central committee appointed Dean W. W. Woodbury; Dr. Stanley Bagnall, Secretary to the C.D.A. and N.S.D.A.; and Dr. A. W. Faulkner, Delegate C.D.A., as our literature committee. This committee, in co-operation with the Departments of Health and Education, has prepared the necessary literature for this campaign, by revising—Treasure House for school children, Grades I to VII inclusive; Mouth Hygiene for grades beyond VII and teachers; Mouth Inspection Charts and letters of instructions and educational information for those participating in the campaign.

The campaign proper began February 1, and will be carried on till April 10, by Dr. Harry S. Thomson, who is a skilful director, endowed with keen mental agility, and a deep understanding of dental problems essential for public educational purposes. The practical response by the members of the dental profession, laymen, Department of Education, and the Department of Health, has been very generous. Their contributions and sympathetic attitude toward the Dental Health Campaign, have caused us to be truly grateful. Special mention is due Dr. P. S. Campbell, Department of Health, for his unceasing devotion to the campaign.

The local papers in the campaign districts have been very generous in the space devoted to editorials and reports of the subject matter of Dr. Thomson's lectures and activities.

Dr. F. R. Davis, Provincial Minister of Public Health, on January 3, issued an invitation to seventy official heads of Public Health and Welfare Organizations functioning throughout the province, to hear a public health program stressing mouth health and preventive dentistry. Dr. Harry S. Thomson, Field Secretary, and Dr. P. S. Campbell were the chief speakers.

During this campaign we hope to impart as much knowledge as is possible, concerning the proper care of the teeth, correct habits of living, a proper diet, establishing and maintaining a healthy mouth and the relation of diseased teeth and contiguous parts to pathological conditions of the body in general.

The school children's teeth are being examined and the mouth inspection chart properly filled in, so that the child, parents and teachers, may gain a helpful mental picture of the mouth conditions of the school children.

Friday afternoon, February 18, twenty-five members of the Halifax Dental Society visited twenty-five city schools for the purpose of imparting information on mouth health.

When this present campaign is completed we hope to have a report from many representative dentists, stating their conception of the objectives carried out in the campaign, and how this educational work can be perpetuated. These letters will be used as a basis for our report to the Minister of Health and Superintendent of Education, so that any future health activities in their departments may be governed by these findings.

GORDON ROSS HENNIGAR,

Chairman of Central Committee.

Halifax, N.S., March 1, 1938.

Dental Education

On Wednesday evening, March 2, the Executive Committee of the Faculty of Dentistry of Dalhousie University, with Dr. Donald Mainland, Professor of Anatomy, as guest, met in the Library Annex to consider the question of whether the present set-up of dental education in general, and at Dalhousie in particular, is along sound lines and, if the situation might be improved, to enquire into the methods suggested for its betterment. With Dr. W. W. Woodbury, Dean of the Faculty, presiding, those present were Drs. G. A. Chudleigh, G. R. Hennigar, W. H. H. Beckwith, A. D. Faulkner, W. C. Oxner, A. B. Haverstock, J. S. Bagnall and G. G. Ritchie. Many and varied phases of dental education were reviewed, with special attention being directed to the desirability of putting into more practical use the training received in the basic sciences. At the conclusion of the meeting Dr. Woodbury expressed the opinion that the discussions had been quite profitable and suggested that similar conferences might be very useful.

Halifax Dental Society

The Halifax Dental Society met at the Nova Scotian Hotel on the evening of March 3. In the absence of the President, and at his request, Dr. W. W. Woodbury occupied the Chair. The guest-speaker of the evening was Dr. C. W. Taylor of the Pathological Institute, presently of Leeds University, Birmingham. His subject "Odontomata" was well-presented, evoking a very interested and interesting discussion. Dr. G. R. Hennigar spoke on the progress of the Oral Hygiene Campaign at present being carried on in Nova Scotia, after which Dr. H. M. Eaton voiced the Committee's particular thanks to those members of the Society who had co-operated with them in addressing the school-teachers of the city.

Decisions as to the place, dates and program for the next Annual Meeting of the Nova Scotia Dental Association have not been made at this date of writing.

On March 9, the Provincial Dental Board plans to hold a meeting for the purpose of considering the preliminary copy of the Brief to be presented to the Rowell Commission on behalf of the Canadian Dental Association.

BRITISH COLUMBIA:

Pacific Coast Dental Conference

The plans and program of the Pacific Coast Dental Conference to be held in Vancouver, B.C., during the week of July 4th to 8th, are practically complete and everything points to one of the major conventions ever held in Canada.

Two outstanding Canadians are among the guest speakers—that Dean of Dentistry, Dr. C. N. Johnson of Chicago; and Dr. F. M. Lott of Toronto, who will present his research findings on "Glass as a Denture Base."

Dr. M. L. Tainter of San Francisco is another guest. His talk will be on "Pharmacology," a subject that has been overlooked but one of major importance to the profession.

A very representative group of outstanding clinicians in the Conference membership will present papers and chair and table clinics and other methods of teaching. Every branch of dentistry will be represented on the program.

A few of these are:—

Dr. R. H. Blanquie	Periodontia
Dr. S. M. Moose	Oral Surgery
Dr. O. T. Dean	Oral Surgery
Dr. Arthur D. Smith	Oral Surgery
Dr. H. C. Fixott	Radiodontia
Dr. G. A. Selleck	Partial Dentures
Dr. F. E. Hogeboom	Pedodontia
Dr. Geo. Hollenbeck	Amalgam
Dr. D. McLean	Economics

Gold Foil will be under the capable direction of Dr. W. I. Ferrier of Seattle, Dr. G. B. Baird of Los Angeles, and Drs. Rule and True of San Francisco.

All Canadian dentists who are in good standing with their provincial organizations are welcome, on the payment of the registration fee. A fine program of sport and entertainment is arranged also for those in attendance at the meeting, and also for their wives.

Plan to attend now. Write for hotel reservations to Dr. V. D. Wescott, Medical-Dental Building, Vancouver, B.C.

Vancouver Dental Society

Dr. W. A. Sykes of Seattle, Washington, presented a paper with clinic on "Immediate Dentures." He described in sequence the steps necessary for favourable results. Before the surgical removal of the teeth he takes impressions of both upper and lower jaws in denticol and makes coecol models. His clinic was for the upper. He made a duplicate of this to act as guide, while in the lower he made a metal model. These were mounted on an anatomical articulator. A base plate was fitted to the upper model before the teeth were removed, one at a time, from the cast and the process trimmed; then the artificial were placed in definite relation to the original. This procedure is carried through one tooth at a time; thus positive replacement of the original mouth is obtained. For mechanical results, posteriors are set up to assist mastication and the line of force.

After surgical removal of the teeth, the denture is immediately replaced with pressure to force any high spot to conform with the moulded denture. If too much pressure is necessary, the denture is relieved, but an

important point is to have the denture smooth with no concavities as the pressure of the denture moulds the future ridge. Relining of the case is necessary at intervals and frequently observations must be made.

ALBERTA:

Dr. Kenny Honoured

Among those who received the recognition of a special Coronation Medal last year, was Dr. H. P. Kenney of Olds, Alberta.

Dr. Kenney, in addition to a busy practice through many years, has found time to be mayor of the town for four terms, his present two-year term expiring at the end of this year. On each occasion of election, he was given the honour by acclamation.

Edmonton Dental Society

The regular meeting of the Edmonton Dental Society was held March 1, at the Macdonald Hotel. Besides dental discussions, Dr. Lee Dods exhibited pictures of his far northern trip during the summer of 1937.

SASKATCHEWAN:

Saskatchewan Convention

The Convention of the Saskatchewan Dental Society will be held in Regina, May 29-31. Outstanding clinicians have been secured, among them being Doctor Layton A. Swanson, Chief Dental Surgeon, Minneapolis General Hospital. Doctor Swanson is a general practitioner and comes highly recommended. His topics will be timely and practical. Full details of the program will appear in the next issue of the "Journal."

Lt.-Col. Wright Honoured

The Minister of National Defence has recently announced the appointment of Lieutenant-Colonel J. Ewart Wright to command the South Saskatchewan Regiment. This regiment, since the re-organization of the active militia, is one of three infantry regiments in the Province of Saskatchewan, and was formed by the amalgamation of the Weyburn Regiment and the Saskatchewan Border Regiment, of which latter regiment Lt.-Col. Wright was formerly in command.

The congratulation of the "Journal" is

extended to Lt.-Col. Wright, who graduated in 1924 from the Dental Faculty of the University of Toronto, and has since practised dentistry in Estevan, Saskatchewan.

MANITOBA:

Manitoba Dental Association

The Canadian Passenger Association has requested that the members of the dental profession be notified through the "Journal" that extensions of time on railway tickets are not granted on certificates of sickness signed by dentists. The certificate must be signed by a physician.

The extension of time cannot be given to a passenger who used the ticket to travel for the purpose of receiving medical or dental treatment. The extension is given only to ticket holders who have been taken ill en route or while at destination.

Winnipeg Dental Society

The March meeting of the Winnipeg Dental Society was well attended, much interest being taken in the five excellent able clinics given by members of the Society. The program was as follows:

Clinician	Subject
Dr. W. J. Riley	X-Ray
Dr. Theo. N. Belden	Dentocol
	Impressions
Dr. B. A. Oja	Gold Foil
Dr. J. A. Jobin	Fractures
Dr. Reeve Morrison	Immediate Dentures

The executive of the society are to be congratulated on the excellent programs which have been provided this season.

ONTARIO:

Dental Health Day

March 2 was Public Dental Health day in Toronto. Dr. John Oppie McCall of the Guggenheim Clinic in New York City, was the guest of the Toronto Academy of Dentistry. Dr. A. E. Higgins, Chairman of the Public Dental Health Committee of the Academy, was in charge of the activities. A dental health educational exhibit was arranged in a window of the Robert Simpson Co. store, which attracted a great deal of public attention. (Space donated by the store.) This exhibit remained intact and on display for one

week. Dr. McCall gave a radio address over C.B.L. station of the Canadian Radio Commission in the afternoon. In the evening, Dr. McCall met all the members of the Public Dental Health Committee for dinner at the Carleton Club and later gave a most interesting address on the subject, "The Modern Program for Prevention of Dental Disease," before the Academy of Dentistry at Osler Hall. Dr. McCall's audience numbered considerably over 300. Dr. B. T. McGhie, Deputy Minister of Health in the Province of Ontario, Dr. Kohli, newly appointed Director of Dental Services, and a good representation of Toronto pediatricians were guests of the Society. Dr. A. E. Higgins was chairman of the meeting.

Health Fair in Ottawa

In conjunction with the service clubs and organizations sponsoring Health Education Week in Canada there was opened on February 18 in the Y.W.C.A. of Ottawa a Health Fair sponsored by the association in co-operation with the local Council of Women. The Dental and Hygiene Council arranged and exhibited posters and booklets on the care of the teeth and this was in charge of the Dentists' Wives' Association. There were also many other interesting health exhibits.

Dr. and Mrs. Reid on Holiday Trip

Dr. Harvey W. Reid, President of the Toronto Academy, with Mrs. Reid spent a well-earned brief holiday with a party of friends at Nassau in March. Harvey is drawing to a close a very successful year for the Toronto Academy and is deserving of much commendation for his efforts.

Stratford Dental Society

At the annual meeting of the above Society held in the City Hall on February 7, Doctor C. W. Hamilton was elected President and Doctor J. A. Boyd, Secretary for the ensuing year.

Chatham School Club

Dr. D. L. Kinzie addressed the Queen Mary Home and School Club of Chatham on February 8, speaking on the subject of "Child Dentistry."

Toronto Academy of Dentistry

Officers of the Toronto Academy of Dentistry elected for the term of 1938-39 are as follows:

Past President, Dr. H. W. Reid; *President*, Dr. H. W. Hoag; *President Elect*, Dr. W. G. Trelford; *Secretary*, Dr. R. W. Hoffman; *Treasurer*, Dr. E. T. Guest. *District Councilors*—District No. 1, Dr. L. Gross; District No. 2, Dr. H. A. Swales; District No. 3, Dr. A. E. Higgins; District No. 4, Dr. S. A. MacGregor; District No. 5, tie vote between Dr. L. Sterling and Dr. G. L. McKibbin. There will be another election to break this tie.

London Dental Society

Dr. J. S. Lapp visited the London Dental Society on February 26th. The subject of his discussion was "Public Dental Health." In this connection Dr. Lapp has spent considerable time in the last few years making a study

of dental health insurance. He is chairman of the State Dentistry Committee of the Canadian Dental Association and a member of the Public Dental Health Committee of the Ontario Dental Association.

Dentists' Wives Association

On February 26 the Dentists' Wives' Association of Ottawa entertained the husbands of the members and the unmarried members of the Dental Society at a dinner party, followed by a program, dancing and bridge.

\$500 or Six Months

On March 8, R. Reid pleaded guilty in County Police Court to "practising dentistry or performing a dental operation not being a member of the Royal College of Dental Surgeons." As this was the third offence he was fined \$500 and costs or six months' imprisonment.

EMPIRE NEWS

Dr. Campbell Honoured

Dr. J. Menzies Campbell, D.D.S. (U. of T., 1912), L.D.S., F.R.S.E. (one of the British Correspondents to our Journal) has been unanimously elected to the Presidential Chair of the West of Scotland Branch of the British Dental Association.

Wages of Dental Mechanics

The Committee foreshadowed to enquire into the question of wages paid to dental mechanics has now been constituted by the three Societies most interested in their employment, under the chairmanship of Mr. R. G. Heegaard Warner, Chairman of the British Dental Association Council. The conditions of training and service are also to be considered, and evidence is to be invited from Government departments, local authorities, and associations representing the trade, whilst the Ministry of Labour has been asked to consider the appointment of an observer. —*British D. Jour.*, March 1, 1938.

The Dangers of Oral Sepsis

At a dinner in support of the appeal for £50,000 in aid of the Ivory Cross National Dental Aid Fund, Lord Horder, who spoke on dental sepsis in relation to ill-health, said it was a safe prediction that the Empire rheumatism campaign would find the association of bad teeth with rheumatic diseases greater and not less than was supposed. This might even lead those directing the campaign to make a substantial subsidy to the Ivory Cross. There was definite and direct evidence that certain parts of the human body were rendered more susceptible to cancer through dental sepsis than they would otherwise be.

The Ivory Cross National Dental Aid Fund aims at securing dental treatment for those people who, though insured under the National Health Insurance Acts, are not entitled to dental benefit through their approved societies, or else are unable to meet the difference between the societies' grant and the cost of treatment, and for those other people for whom there is no State provision at all and who cannot afford to pay for treatment.—*Lord Horder in Dental Magazine and Oral Topics*.

Portsmouth Voluntary Council for Health Education

At a meeting held in Portsmouth recently it was unanimously decided to form a Voluntary Council for Health Education with the object of "assisting the Health Committee in disseminating knowledge regarding the Health Services of the city, simple principles of healthy living, and the prevention of disease." The Lord Mayor, for the time being, is to be President of the Council, and invitations to appoint representatives have been extended to many local bodies, including the local section of the British Dental Association. Portsmouth claims to be the first city in the country to have set up such a body.—*British D. Jour.*, March 1, 1938.

School Dentists

In his report for 1936-37, Sir Arthur MacNalty, Chief Medical Officer of the Board of Education, states that the number of school dentists employed throughout the country was 907, or about 1 to 6,735 children.

Health Sunday in Britain

Sunday, January 23, was observed in churches throughout Britain as Health Sunday. In thousands of sermons references were made to the importance of good health—personally, socially, nationally—and to the wisdom of using the Health Services provided by the State.

Why We Need a Dental Health Campaign

The parents of 37 out of every 100 children found by school dentists to need dental treatment do nothing about it.—*Lord Stanhope, President of the Board of Education in Dental Magazine and Oral Topics.*

AUSTRALIA:

10th Australian Congress

The next Congress of the Australian Dental Association will be held in Melbourne, August, 1939.

NEW ZEALAND:

Medicine Again

Mr. Fraser, the New Zealand Minister of Health, has announced, says a Reuter message

from Wellington, the establishment of a medical research council charged with the task of co-relating the work of medical research workers and recommending the lines for future investigation.

Mr. Fraser stated that the New Zealand Government would make available as much money as possible for this purpose.—*Dental Magazine and Oral Topics.*

SOUTH AFRICA:

Students' Conference at Johannesburg

At the Conference of the National Union of South African Students held recently at Johannesburg, it was both surprising and gratifying to find on the agenda of the meeting a discussion concerning dental disease. The majority of students are easily interested in sport and lighter forms of amusement, but it is rare indeed to find a students' organisation interesting itself in the more everyday affairs of life. The explanation for their interest in dental health is probably to be found in the fact that in recent times both Government and Public Bodies have stressed the need for greater attention in South Africa to health matters generally.—*Dental Magazine and Oral Topics.*

INDIA:

Nair Hospital Dental College

The annual report of the above college, to May 1937 shows considerable progress over previous years. There were 57 regular students, a teaching staff of 25, and 9,727 patients treated in the infirmary. They are contemplating making a special effort to give dental treatment and preliminary dental education to school children, which is a most commendable and forward step in the cause of preventive dentistry.

Dental Laws

At the January meeting of the Presidency Dental Association, the Surgeon-General gave assurance that steps were being taken to bring the profession and practice of dentistry in the Bombay Presidency under statutory control, a step generally welcomed by the public as well as by the profession itself.

GENERAL NEWS

A Statement From the Committee on Legislation, American Dental Association

Two major activities of the Committee on Legislation of the American Dental Association have reached a stage where successful results appear assured.

The Army Dental Corps program as adopted by the House of Delegates of the American Dental Association, called for a ratio of one dentist to 500 enlisted army men and their dependants, with a Brigadier General to properly direct army dental service, heretofore pathetically undermanned but maintaining a professional standard which reflects credit on the dental profession.

This proposed ratio was not considered advisable by the War Department, however, a total increase in personnel of the corps as recommended and recently granted by Act of Congress, of one hundred dental officers with the grade of Brigadier General acting as Assistant Surgeon General, created for the chief of that corps, assures a splendid improvement in army dental service. This is not yet an adequate service from our point of view, based on Government reports, but nevertheless is a very decided improvement and a recognition by Congress and the President, of the proved need and value of additional dental health service in the Army. With authority vested in the rank of Brigadier General, provision is made for efficient direction of this service, the status of dentistry is greatly improved in the public esteem and the military status of dentistry is made commensurate with its educational requirements and the importance of the service it renders.

Particularly significant is the fact that this legislation has come in a time of peace, with none of the urgent necessities and concessions to normal values that attend war and preparation for war. It has come in calm consideration of the importance of modern dentistry in the field of human health.

Another major effort of this committee is directed toward the outlawing of the improper practice of selling dentures, or rather what is claimed to be a denture, by mail. This committee has corresponded with State Dental

Examining Boards in those states harbouring mail order offenders, the Federal Trade Commission and the U.S. Post Office Department, in our attempt to stop this bushwhacking practice which depends on the gullibility of the Public for its easy profits.

Complaints from dentists and laymen from nearly every state have flooded our mail, with generally an expression of bewilderment that a method of practice that threatens the standards of dentistry, branded detrimental to public health and welfare, and condemned by the American Dental Association, continues unchecked, although apparently in violation of state dental laws.

The Federal Trade Commission so far as its authority permits, has taken action against several of these concerns greatly modifying the claims which originally appeared in all these advertisements. Following extensive investigations of these concerns, conducted by the Post Office Department, a hearing was set in Washington by Postal authorities on November 22, 1937, when charges of fraud were presented in the case of S. B. Heininger of Chicago, whose dental license was recently revoked by the Illinois Department of Registration and Education.

The January Journal of the A.D.A. published a brief account of this court bearing which resulted in a "Fraud" order being issued on February 21, by the U.S. Post Office Department, refusing use of the Mails to Dr. Heininger, Dr. S. B. Heininger, Dr. S. B. Heininger, D.D.S., Dr. S. B. Heininger, Dentist and Sylvan Dental Laboratory, Chicago, Illinois.

This action of the Government will have far reaching consequence in the protection of public health and welfare as they may be affected by methods of dental practice and effectively removes a very definite threat to the continued maintenance of present high standards of dental teaching and practice.

These two official actions are of vital concern to all who practise the profession of dentistry. To certain members of Congress and officials of the Post Office Department, who have shown an intelligent and sympathetic understanding of the aims and ideals of

organized dentistry, we, as a profession are deeply indebted.

A. B. PATTERSON, Chairman,

Committee on Legislation

American Dental Association.

Joliet, Illinois, February 23, 1938.

National Dental Poster Contest Prizes in U.S.A.

Fifteen loving cups will be awarded the fifteen winners of the National Poster Contest at St. Louis. Also the A.D.A. will award an Encyclopedia Britannica to each of the five schools represented by the children winning first place in each division. Senior Encyclopedias to the winning vocational school. Senior Encyclopedias to the winning senior high school. Junior Encyclopedias to the winning junior high school. Junior Encyclopedias to the winning elementary school. Junior Encyclopedias to the winning rural school.

FIVE SETS OF ENCYCLOPEDIAS IN ALL!

In addition—The A.D.A. will furnish a 7 x 9 inch certificate of award to each of the fifteen winners in each component poster contest. (See page 300, Feb. 1938, Journal of the A.D.A.).

NATIONAL POSTER CONTEST COMMITTEE.

Lon W. Morrey, Chairman,

American Dental Association,

212 E. Superior Street,

Chicago, Illinois.

Midwinter Meeting of the Chicago Dental Society

The Midwinter Meeting of 1938 of the above Society was very successful. More than 10,000 persons registered, being the largest registration in the history of the Society. The crowded section rooms and the well-attended social affairs and general sessions were evidence of the approval of those who attended. It likewise showed the splendid result of the planning, leadership, executive ability and hard work put into the Convention by the members of the Chicago Dental Society.

Professionalizing the Dental Teacher

Dr. Alfred J. Asgis of New York University, School of Education is conducting a study on the social and professional aspects of dentistry and dental education in the 20th century. He would like to receive reprints or information

of important developments related thereto. Communicate with Dr. Asgis at 33 West 42nd Street, New York City.

Cost of State Health Service in U.S.A.

Last year Texas appropriated \$316,881 for Public Health or only five cents per capita.

Massachusetts last year appropriated \$3,228,815 for its State health service, or 74 cents per capita. New York appropriated \$6,876,357, or 54 cents per capita; Pennsylvania, \$3,099,250, or 31 cents per capita; California, \$1,136,320, or 20 cents per capita.

The Southern States generally were far ahead of Texas, both in per capita and total appropriations for State health work. Our neighbouring State, Louisiana, reported \$430,000, or 18 cents per capita; Georgia appropriated \$500,000, or 15 cents per capita; Alabama, \$430,000, or 15 cents per capita; North Carolina, \$384,566, or 11 cents per capita.

The only States below Texas were Kansas, Nebraska and Oregon, each allowing four cents per capita.—*Fr. Houston Texas Post, Jan. 9, 1938. (A.D.A. Press Release Service.)*

Average Family Spent \$356 in 1937 on Food

Agriculture Department economists estimated today that the typical workingman's family spent \$356 in 1937 for food. Of this amount, they said, the farmer received an average of \$161, the balance of \$195 going to processors, wholesalers, retailers and shippers.—*Fr. Chicago News, Jan. 20, 1938. (A.D.A. Press Release Service.)*

Only 20 Per Cent. Use a Tooth Brush

Commerce Department trade experts are convinced that there are 100 million people in the United States who do not brush their teeth. This is the way they arrive at this conclusion: Unpublished figures from the toothbrush industry show an annual sale of 60 million. Since toothbrush users buy an average of two brushes a year, this means there are only 30 million who scrub their teeth. This number, deducted from 130 million, the population of the country, leaves 100 million who disdain toothbrushes.—*"Washingington-Merry-Go-Round."*—*Fr. New York Jl. of Dentistry, Jan., 1938. (A.D.A. Press Release Service.)*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

M. A. McGuigan—of Charlottetown, P.E.I., died February 20, of pneumonia. He graduated from Tufts Dental College, Boston, and following this has practised in Charlottetown.

Dr. McGuigan is survived by his mother, two brothers, Archbishop James C. McGuigan of Toronto and John McGuigan, medical student at University of Alberta, and three sisters.

William Edward Grieve—only son of Dr. and Mrs. George Grieve, Toronto, aged 19, was killed in an aeroplane crash near St. Louis, Mo. He graduated from University of Toronto Schools in June, 1937. Immediately he began a two-year course of study in Parks Air College in East St. Louis, Mo. He had hoped to become connected with Canada's new trans-Canada Air Lines when he had completed his training.

J. L. Rogers—of Chatham, Ontario, died in February. He practised in Winnipeg for twenty-five years except for the time he served overseas with the Dental Clinic Detachment. For two years he was with the Canadian Hospital at Folkestone, England. He returned to Winnipeg in 1919; later he moved to California, and recently returned to Ontario.

F. E. White—aged 72, of Fort Royal, Va., U.S.A., died in February. He graduated from the R.C.D.S. and commenced practice in Winnipeg in partnership with his brother, Doctor J. J. White, until 1895, when he moved to Neepawa, Manitoba. He practised in Neepawa until seven years ago when he moved to Fort Royal. Doctor White was an active member of the Masonic and Odd Fellows Orders. He is survived by his widow, two sons and four daughters.

Conventions

71ST ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION,
ROYAL YORK HOTEL, TORONTO, MAY 16-18.

Dentists from the United States and from the other provinces
of Canada will be welcomed as guests.

SASKATCHEWAN DENTAL ASSOCIATION, REGINA, MAY 29-31.

CANADIAN DENTAL ASSOCIATION (DELEGATES' MEETING),
VANCOUVER, JUNE 30-JULY 2.

PACIFIC COAST DENTAL CONFERENCE, VANCOUVER, JULY 4-8.

ANNUAL MEETING OF THE BRITISH DENTAL ASSOCIATION,
BELFAST, JULY 29-AUGUST 3.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.
K. C. Campbell, Secretary, 88 Portland Place, London, W.1, England.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

AMERICAN ACADEMY OF PERIODONTOLOGY, ST. LOUIS, MO.,
OCTOBER 20-22.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAudeau, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétrault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Le Tabac

Il ne se passe pas un mois sans qu'une revue médicale ou autre nous dise un petit mot des bienfaits ou des méfaits du tabac.

Dans chaque article cependant, on sent parfaitement bien que l'auteur n'y est allé de son opinion, de ses distinctions, de ses restrictions que pour oublier sa propre faiblesse de volonté et se faire croire en le disant aux autres, que fumer n'est après tout pas si dommageable.

Propos de carême me direz vous! En effet ce sont les aveux de confrères et d'amis que l'esprit chrétien a poussés à s'abstenir de fumer en guise de pénitence. Oui, et quelle salutaire pénitence à ce que je vois. A coup sûr personne ne parle des mérites acquis par un si superbe effort de volonté, mais tous chantent avec une évidente conviction les bienfaits physiologiques de leur abstention. Remarquez bien le geste de presque tous les abstinents; ils se passent la main sur le front en disant: "tiens, tu ne sais pas ce qu'on est bien; c'est clair ici (au front siège probable des idées)," plus de lourdeurs. C'est curieux depuis que je ne fume plus, je m'éveille le matin beaucoup moins fatigué, mon appétit est revenu, je travaille avec beaucoup plus d'entrain et surtout je m'endors le soir en me couchant". D'autres constatent avec surprise qu'ils ne toussent plus, que leur digestion se fait mieux, que la marche, les escaliers les essoufflent moins; les autres, qu'ils ont la main plus ferme pour opérer ou pour certains travaux délicats, enfin il y en a même qui prétendent que leur mémoire et leur vue sont meilleures. Chacun n'éprouve pas toutes ces améliorations, mais tous disent se sentir beaucoup mieux et avouent avec une indubitable sincérité: Ah! si nous avions le courage!

Eh bien! oui, fumer est dommageable à tous et dangereux pour plusieurs. Si le vieux X——, fumeur enragé a atteint 90 ans et semble ne pas se porter trop mal.

c'est une exception, c'est tout. Vous ne nierez pas les ravages de l'alcoolisme et cependant vous en connaissez des alcooliques de 80 ans.

J'ai vu des étudiants de 23 ou 24 ans inhabiles à la sculpture ou aux travaux en bouche parce qu'ils tremblaient comme des vieillards. Trop de cigarettes.

Je me garderai bien de montrer la profondeur de mon ignorance en tentant d'expliquer scientifiquement comment tout cela se produit, mais il y a plusieurs choses que je sais de science certaine. Nous admettons tous que fumer agit sur le système nerveux. Un de mes étudiants me disait encore il y a quelques minutes: que pour se tenir éveillé le soir en étudiant, il fume. Le tabac agirait donc comme la strychnine et le café. Mais, quand donc prescrit-on ces médicaments? Quand le coeur vieillit ou fatigué n'a plus la force nécessaire à faire son travail. Il lui faut un stimulant ce sont donc les excitants et non des reconstituants. Se trouvera-t-il quelqu'un pour nous prouver qu'il a déjà vu un organe ainsi traité, récupérer définitivement sa vigueur d'autrefois. Non, il en faut et il en faudra toujours et davantage pour faire marcher la machine. Si bien qu'un jour, usée par cette énergie artificielle et n'en pouvant plus elle s'arrête pour toujours. Je me suis même laissé dire que le café abrège les jours, que dans telle communauté de prédicateurs bien connus, tous grands buveurs de café fort, la moyenne de vie est de 53 ans, tandis que chez les trappistes d'Oka, elle est de 80 ans. Vous me direz peut-être que le genre de vie y est pour quelque chose. Soit, mais si deux mal-fauteurs portent à un individu des coups qui par eux-mêmes ne sont pas mortels, et que la victime en meurt, tous deux sont responsables au même degré. Il en est ainsi de l'usage du tabac. Autre fait. Vous tous qui fumez, n'avez vous jamais remarqué qu'après une abstention de quelques jours ou encore le matin à jeun, le première bouffée nous étourdit. Que s'est-il donc passé? Ce n'est certainement pas la fumée qui vous est montée dans le cerveau, mais ce sont les produits toxiques de la combustion du tabac que vous avez aspirés et qui transportés par le sang sont allés empoisonner les centres nerveux tout comme le chloroforme l'éther ou tout autre anesthésique. En tous cas il est certain que dans l'échange pulmonaire le sang est privé d'oxygène et chargé d'agents asphyxiants qui atteignent le bulbe puisque le rythme de la respiration en est accéléré. C'est un empoisonnement. Supposons maintenant que cette espèce narcose est poussée au point d'abolir tout réflexe; est-on bien certain que le patient en reviendrait? Probablement que non, puisqu'une si petite quantité a suffi à provoquer un commencement d'inhibition bulbaire. C'est donc un poison. Et si cette drogue qui dans notre jeune âge nous a rendus malades à rendre l'âme, ne nous a pas encore tués, c'est tout simplement par un phénomène de nithridatisation. Est-ce une pratique que nous serions prêts à recommander à nos patients dans tout autre domaine?

Que de dangers il y aurait encore à signaler. Est-il bien rassurant de savoir qu'en insufflant de la fumée de tabac sur des oreilles de lapins on a réussi à provoquer la formation de carcinômes (cancers)? Mais il me faut bien me limiter et conclure qu'avec un peu plus de courage et de probité scientifique, même fumeurs, nous n'hésiterions pas à signaler à tous les danger de l'usage du tabac. Beaucoup de personnes s'en trouveraient mieux et surtout le sexe faible.

A. Thibaudeau, D.D.S.

La femme du médecin a un rôle infiniment subtil à remplir développer les qualités de son mari et amortir ses défauts. Bien peu se doutent de l'importance de cette fonction et n'essaient même pas à y donner leurs qualités de délicatesse innée et de finesse.

*Dr Charles Fiessinger.
Aphorismes sur la réussite
dans la clientèle médicale.*

La Bacteriologie des Concretions Pierreuses de la Pulpe Dentaire

Un Rapport Préliminaire

Traduction autorisée par les auteurs:

Otto Kretschmer, A.M., M.D.,
John W. Seybold, D.D.S.,
Republic Building,
Denver, Colorado.

Article traduit de l'anglais par:

Docteur J. A. Renaud,
Professeur agrégé, Faculté Dentaire,
Université de Montréal,
Montréal, Québec.

DANS le but de connaître, si possible, l'étiologie des calculs pulpaire dentaires (modules pulpaire, denticules), les auteurs de cet article ont, depuis deux ans, fait des cultures avec des calculs pulpaire de dents non cariées, sans infection pyorrhéique évidente qui pouvait justifier leur avulsion.

Le principal symptôme qui nous pousse à une telle action fut une douleur intermittente dont on ne pouvait trouver la cause ailleurs. Après avoir cherché dans ce qui a été écrit sur ce sujet, nous n'avons pu trouver aucune étude au point de vue bactériologique, de telles concrétions.

CLASSIFICATION ET CAUSE

Black, en 1895, divisa la calcification qui se produit dans la chambre pulpaire en deux types généraux:

(1) Les calcifications adhérentes aux parois de la chambre pulpaire;

(2) Celles qui se développent librement dans le tissu pulpaire, sans attaches à la chambre pulpaire.

Celles du premier type contiennent généralement, pas toujours, des tubuli dentinaires; celles du second type jamais, et peuvent être délogées assez facilement de leur position.

Kronfeld les appelle denticules. Black dit des concrétions pulpaire libres que contrairement aux autres elles ne montrent aucun signe de formation de dentine,—"elles progressent simplement dans la chambre pulpaire comme pour étrangler les tissus de la pulpe et causer sa destruction." Il affirme que les calci-

fications adhérentes ne produisent pas de symptômes particuliers. Les raisons de leur formation sont: l'érosion et l'abrasion de la dent, qui déterminent un réflexe manifesté par un dépôt de dentine dans le but de prévenir l'exposition de la pulpe. Quant au type de calcification pulpaire libre, ou nodule pulpaire, il admet que la cause est inconnue.

Hill (1934) dit qu'elles sont de trois types:

(1) La calcification pulpaire causée par un enveloppement des odontoblastes durant la période de développement, comme l'ont fait remarquer plusieurs investigateurs. Cette région enveloppée se sépare de la masse des odontoblastes et des îlots de dentine se forment. Ce type a été observé chez les animaux inférieurs manquant de vitamine A ou C. C'est probablement peu commun chez l'homme.

(2) Dans la dégénérescence fibreuse, de la pulpe, le tissu conjonctif hyalin peut se calcifier (la dégénérescence fibreuse, bien entendu, suit la poussée de l'inflammation produite par des organismes infectieux).

(3) Les substances à myéline (corpora amylacea) de la pulpe peuvent servir de noyau à la calcification lamellée de la pulpe.

Miller, il y a longtemps, a dit que le tissu conjonctif de la pulpe forme la matrice ou la substance basique du nodule pulpaire.

Kronfeld désigne les calcifications variées de la pulpe comme des denticules,

les classifiant comme suit: (1) Vraies denticules attachées ordinairement à la paroi de la chambre pulpaire et consistant en une excroissance de la dentine (dentine secondaire) contenant plus ou moins de tubuli dentinaires imparfaits; (2) fausses denticules détachées ordinairement de la paroi de la chambre pulpaire, et ne possédant pas de dentine ni de tubuli dentinaires; (3) les calcifications interstitielles de la pulpe, consistant en des régions de calcification diffuse, répandues ça et là à l'intérieur du tissu de la pulpe.

Les autres causes, à part celles de l'érosion, de l'abrasion, et de l'avitaminose possible, désignées par différents auteurs comme responsables des nodules pulpaire, sont: les caries, les obturations de cavité profonde (de même que les incrustations) et l'inflammation chronique (Kronfeld). Stafne et Szabo rapportent qu'aucune de ces conditions n'est nécessaire à la formation des nodules pulpaire, puisqu'on les rencontre dans un grand nombre de cas où elles n'existent pas. De même, ils rapportent que des calculs pulpaire peuvent aussi bien se rencontrer dans une dent normale que dans celle qui est malade. Bien qu'ils admettent que dans bien des cas la formation de nodules peut être précédée d'inflammation chronique de la pulpe, ils ne considèrent pas cette condition comme essentielle. Si nous désignons comme normales toutes les dents contenant un nodule, nous devons alors reviser la définition du mot "normal" parce qu'il nous faudra classer aussi comme régions normales, toutes calcifications d'origine pathologique dans l'économie.

Fish proclame que l'inflammation chronique de la pulpe est généralement suivie de la résorption de la dentine au lieu de sa prolifération. Cette prétention semble, pour le présent, ne pas être approuvée, excepté dans le cas des caries.

Henrici et Hartzell font remarquer que les dents avec pulpes infectées manifestent deux types différents de lésions: (1) l'inflammation avec bacilles mononucléaires, rarement polymorphonucléaires; (2) celles qui dégénèrent en changement secondaire, y compris les dégénérescences fibreuses, les calcifications et les accumulations de tissus graisseux. La première seulement, disent-ils, peut être considérée comme preuve évidente de l'activité bactérienne dans la pulpe. Cependant, ils concluent qu'ils sont plutôt portés à croire que ces changements sont le résultat des réactions inflammatoires décrites et qu'elles représentent des lésions répétées d'un caractère granuleux suivies de guérison spontanée. Ils ne font aucun rapport de cultures de telles calcifications pour prouver leur assertion. Néanmoins, c'est plus en rapport avec ce que nous avons trouvé dans les pulpes dentaires dont la calcification est due, dans la plupart des cas, à un processus infectieux. Mais nous avons trouvé que la présence de calculs pulpaire ne signifie pas toujours un processus de guérison, puisque l'on trouve des microorganismes dans les dents qui contiennent des calculs pulpaire.

SYMPTOMES ET SIGNES DES CALCULS PULPAIRES

En résumé, Black (1915)¹ dit: "mes études sur la progression de ces calcifications indiquent qu'elles ne produisent pas de symptômes particuliers". Probablement à cause de l'avancé de cet éminent investigateur, on a fait très peu de progrès pour trouver les symptômes produits par les calculs pulpaire. Burchard et Inglis² d'autre part, en 1912, ont signalé ce qui suit comme symptômes de la présence des calculs pulpaire:

- (1) Pas de symptômes.
- (2) Douleur inexplicable sans la présence de carie pour la déterminer.
- (3) Hyperesthésie de la peau de la face.

(4) Névralgie persistante, même à des points distants, tels que: le cuir chevelu, l'oeil, etc.

Ces derniers disent que Gilford a rapporté un cas de tic douloureux ayant pour cause une concrétion pulpaire. Nous pouvons confirmer cet avancé dans le cas d'une noire qui a guéri d'un tic très douloureux, après l'avulsion d'une de ses dents qui, mise dans un milieu de culture, développa des streptocoques.

Probablement que si nous étudions avec plus de soin des cas de concrétions pulpaires, suivant les symptômes, et ce, avec un esprit ouvert, nous diminuerions le nombre de cas de la première rubrique. De même, lorsque nous faisons un diagnostic clinique d'une maladie définie par quelques symptômes, il est avantageux de radiographier toutes les dents dans le but de découvrir la présence de calculs pulpaires.

Suivant notre expérience, le genre de douleur qui se manifeste aux dents qui contiennent de ces calculs, a été principalement d'un caractère intermittent, d'une intensité variée et à des endroits variables; quelquefois elle est ressentie à la dent même, d'autres fois à la mâchoire opposée.

La douleur peut probablement s'expliquer par la pression mécanique du calcul sur les fibres nerveuses de la chambre pulpaire. Au dedans, d'après Maximow, il existe une agglomération de fibres nerveuses à myéline venant du ganglion de Gasser pour pénétrer dans le canal radiculaire. Celles-ci donnent naissance aux fibres nerveuses sans myéline qui approvisionnent les couches périphériques de la pulpe, dont quelques-unes se trouvent entre les odontoblastes. De plus, Dieck semble avoir définitivement établi que les fibres nerveuses sans myéline, continuation de celles à myéline de la surface de la pulpe, entrent dans les tubuli dentinaires pour s'étendre à travers la dentine et se rendre à la jonction

énamo-dentinaire. Il n'est pas difficile par conséquent de concevoir l'origine des symptômes de la douleur intermittente, provenant probablement du fait de la pression de la pulpe en train de se calcifier lentement à l'intérieur de ces structures nerveuses.

Les dents contenant des calculs peuvent manifester, et souvent manifestent, un arrêt momentané, mais rarement une absence complète de réaction nerveuse.

En effet, il est souvent difficile de concevoir comment certaines dents dont la chambre pulpaire, et même jusqu'à un certain point le canal radiculaire, remplis par de telles concrétions, peuvent encore malgré tout répondre à des sensations nerveuses. Nous avons eu plusieurs dents dans lesquelles toute la chambre pulpaire, et dans d'autres, un, deux, ou trois canaux radiculaires avaient été complètement remplis de tissus calcifiés, et toutes ces dents donnèrent encore quelque signe de vitalité. Placées dans un milieu de culture, elles donnèrent naissance à des streptocoques véritables. Il est donc probable que la plupart des dents avec calculs pulpaires conservent une certaine vitalité.

Ordinairement le diagnostic radiographique n'est pas difficile quand les nodules sont gros. Cependant, quand ils sont jeunes, c'est-à-dire avant que la calcification existe, les diagnostiquer n'est pas facile. Généralement les racines de dents qui contiennent des nodules ne montrent pas de changements péri-apicaux. La présence de calcifications diffuses de la pulpe est quelquefois plutôt difficile à diagnostiquer au moyen de l'examen radiographique.

QUESTION DE FAIT

Il peut arriver que l'on rencontre un seul calcul pulpaire dans une même bouche, mais plus souvent deux ou plus. Weiss¹⁰ rapporte récemment un cas où toutes les dents en contenaient.

Stafne et Szabo⁶ en trouvent plus fré-

quemment chez les femmes que chez les hommes: 276 chez les premières et 224 chez les seconds. La différence est trop petite pour être significative.

Les dents qui n'ont pas encore fait éruption contiennent occasionnellement des calculs pulpaire. Le Dr George Warner tient sous observation un garçon de quatorze ans qui a une dent non encore sortie qui contient un calcul. Il serait intéressant de faire une culture de ce calcul. On ne pourrait dans ce cas, bien entendu, s'attendre à une culture positive.

Kronfeld⁹ dit que les grosses denticules sont plutôt rares, mais que les petites se rencontrent dans 80 pour cent au moins de toutes les dents des adultes.

METHODES DE CULTURE

Pour faire la culture des dents qui contiennent des calculs pulpaire, nous avons employé la technique suivante: les dents qui d'après les radiographies en révèlent la présence, sans être cariées, sans amalgames, incrustations ou poches pyorrhéiques apparentes, sont extraites avec aseptie chirurgicale après l'application d'antiseptiques, enveloppées dans de la gaze stérilisée et finalement déposées dans des plats Petri jusqu'au moment où tout est prêt pour la culture. En dedans d'une heure après l'extraction, la dent complète est immergée pendant une minute dans un récipient stérile contenant une solution très forte de teinture d'iode, une autre minute dans de l'éthanol à 95 pour cent, et finalement rincée dans une solution salée stérile.

Cette manière de procéder est employée pour détruire les microorganismes de la bouche que pouvaient entraîner les racines, ce qui peut produire des cultures simultanément avec celles des calculs pulpaire dans les éprouvettes.

Ce procédé ne tue pas ordinairement les micro-organismes présents dans les canaux radiculaires et sûrement pas ceux de la chambre pulpaire. Les racines

sont alors coupées avec un instrument stérile et sont immergées dans un milieu de culture contenant des tissus de cerveau frais, de la glycerine et de la peptone (formule semblable à celle de Rosenow).

La dent est alors ouverte pour exposer le nodule pulpaire. S'il est du type libre, il est pris avec une précelle stérile, plongé dans un autre tube contenant le même milieu de culture ci-haut décrit et incubé à 37°C de 24 à 48 heures. Généralement après 24 heures, rarement après 48 heures, les cultures montrent progrès. Quelquefois, simplement en touchant la gaine bactérienne de la paroi de la chambre pulpaire et en inoculant le milieu de culture on obtient une croissance microbienne. Lorsque le nodule pulpaire ne peut pas être dégagé, il suffit de faire son prélèvement sur la paroi de la chambre pulpaire adjacente à la calcification et d'ensemencer. Il faut se rappeler que les micro-organismes trouvés ont été localisés sur la surface du calcul et non au-dedans, comme l'ont montré les sections teintes, par l'absence de microbes à l'intérieur de leur structure très dense.

OBSERVATIONS

En tout quarante-deux (42) cas ont été examinés. De ce nombre, trente-neuf (39), ou quatre-vingt-douze pour cent (92%), ont donné naissance à une pure colonie de streptocoques. Une culture négative venait d'une dent extraite le jour précédent. Cependant, il est important de noter que dans les trois cas de culture négative du nodule les apexes ont donné des streptocoques. De plus, les racines de ces dents ont donné, comme à l'ordinaire, naissance à un streptocoque du même type que celui produit par le calcul pulpaire lui-même. Cette observation nous porte à conclure que la porte d'entrée de ces microbes n'est autre que le canal radiculaire, puisque les vaisseaux sanguins et lymphatiques entrent par les canaux radiculaires, excluant, il va sans dire, les caries que nous avons omises

dans ces études. Nous n'avons pas été capables de déterminer si les organismes pénétraient dans les canalicules dentinaires par la voie latérale de la membrane péri-dentaire. Dans ce cas le ciment aurait dû être écorché préalablement. Un fait dont nous pouvons être sûrs dans ce genre de travail de culture est celui-ci: en cultivant les calculs pulpaire nous ne rencontrons pas les difficultés qui se présentent quand nous faisons des cultures de bouts de racines, parce que ces concrétions sont enfermées à l'intérieur de la chambre pulpaire aux parois très denses et ne sont pas exposées à la contamination du milieu buccal comme les dernières.

Pour ce qui est du type de streptocoque trouvé dans les cultures, un seul était du type hémolytique, les autres du type viridans et quelques-uns non-hémolytiques. Le détail de ces observations à publier dans une prochaine communication.

DISCUSSION

1. Dans combien de dents avec calculs pulpaire trouvera-t-on en définitive des micro-organismes du type pathogène?

Ceci dépendra en quelque sorte de plusieurs facteurs, tels que le type de calcul choisi, la méthode de manipulation, le milieu de culture employé, etc.

Des quarante-deux (42) cas que nous présentons, série plutôt petite, quatre-vingt-douze pour cent (92%) montrèrent d'une façon positive des streptocoques. Nous aimerions à stimuler d'autres chercheurs compétents pour étudier leurs propres cas et les publier. Nous ne nous attendons pas à trouver streptocoques dans les cas où toute la chambre pulpaire et les canaux sont calcifiés, et dans lesquels aucun tissu mou quel qu'il soit, n'existe pour servir de nourriture aux streptocoques. Néanmoins, nous l'avons rencontré dans des cas où la chambre pulpaire était virtuellement remplie par le nodule, et dans plus d'un, où les canaux radicu-

laire étaient presque remplis de calcification.

2. Les streptocoques peuvent-ils être la cause de concrétions pulpaire?

Comme indiqué plus haut, Miller a établi, il y a plusieurs années, que le tissu conjonctif de la pulpe forme la matrice ou la substance basique du nodule pulpaire. Hill² établit dernièrement (1934) que dans les dégénérescences fibreuses de la pulpe le tissu conjonctif hyalinisé peut se calcifier. Il est probable que l'infection soit la plus importante cause de formation fibreuse interstitielle. Cependant, il y en a d'autres qui sont d'origine métabolique. En tout cas, nous n'en connaissons que trop peu sur ce sujet pour y voir une relation avec la formation des nodules. L'on peut cependant supposer que plus tard il sera établi que les calculs pulpaire trouvés chez les plus jeunes sujets sont causés par une déficience de vitamine ou par une mauvaise constitution glandulaire. N'allons pas plus loin, car les preuves suffisantes nous manquent.

De la même manière, un tissu pulpaire irrité par d'autres causes peut agir comme milieu de moindre résistance et abriter des germes en second lieu. Finalement, chez les sujets plus âgés où les calcifications sont plus communes, un processus artério-sclérotique peut se produire dans les vaisseaux pulpaire avec atrophie et dépôts calcaires de la pulpe comme résultat. Ceci n'a d'ailleurs été décrit nulle part et nous ne savons pas si cela arrive.

Pour conclure la discussion sur ce sujet, rappelons-nous que nous avons trouvé des micro-organismes du type pathogène dans un grand nombre de cultures de calculs pulpaire et que nous sommes justifiés de conclure qu'ils doivent être un facteur, sinon la seule cause de cette formation calcaire des dents.

3. Quelle est la marche de la calcification pathologique de la pulpe dentaire?

Pour répondre à cette question, nous

devons être capables d'expliquer le mécanisme de la calcification pathologique ailleurs dans le corps humain et dans celui de l'animal, et ceci n'a pas encore été accompli. Il y a, d'après Barr, "un nombre de types de calcification pathologique qui s'applique aux dépôts de sels de chaux dans les tissus en train de mourir ou déjà morts. Puisque n'importe quelle région de tissu dévitalisé qui n'est pas absorbé, peut devenir infiltrée par des sels de chaux, l'endroit et la distribution de cette nature sont extrêmement variés. La calcification déformante se trouve dans les tissus morts, tels que dans les régions de nécrose et dans les amas épais de pus. Il se trouve dans le tissu cicatrisé qui subit des changements hyalins. Les tissus fibreux et élastiques sont les types le plus souvent impliqués." L'histologie de la pulpe dentaire nous montre que les vaisseaux sanguins, les lymphatiques et les nerfs sont supportés par un lâche réticule de tissus conjonctifs muqueux. La pulpe est donc un milieu idéal pour les malformations calciques. Bien plus, nous savons que l'inflammation d'origine bactérienne arrive souvent dans la pulpe. Nous avons alors un milieu idéal pour calcification dans la pulpe dévitalisée.

La raison de ces dépôts de calcium qui se rencontrent dans les tissus dévitalisés est probablement locale. Le calcium vient du sérum sanguin. Kleinmann¹² en 1928, à l'aide d'un électromètre, a mesuré l'alcalinité des tissus dévitalisés et les a trouvés plus alcalins que les tissus vivants normaux. Bien plus, il a trouvé que la solubilité des sels de chaux dans le sérum diminue en proportion de la diminution de sa concentration d'ions d'hydrogène, et augmente dans celle d'un sérum d'une alcalinité croissante, d'où dépôt de sels de chaux dans les tissus dévitalisés. Si cette série de phénomènes se produit actuellement dans une pulpe dentaire, comme il est possible de le supposer, le

calcul pulpaire est le produit final d'un processus d'infection.

Beaucoup de travaux restent encore à faire et quelques-uns sont en cours dans notre laboratoire, tels que: (1) Etude bactériologique d'un plus grand nombre de calculs pulpaux aux différents stades de leur formation, avec classification des organismes trouvés et agglutination avec le sérum du patient qui a fourni le prélèvement, expérimentation sur animaux, etc.; (2) Il faudra voir quelles sont les relations entre ces formations pierreuses et certains désordres de l'organisme.

TRAITEMENT DES DENTS AVEC CALCULS PULPAIRES

Si nos constatations sont confirmées, une seule chose est recommandable, c'est l'extraction de toutes dents qui contiennent un calcul, parce qu'elles sont infectées. Ce sont des foyers d'infection possibles ou actuels, même si dans un cas donné aucune manifestation de lésion ou de désordre n'a pu être démontrée. Certainement que nous n'hésiterions pas à extraire toute dent dont un ou plusieurs canaux radiculaires seraient infectés par le streptocoque.

CONCLUSIONS

1. Les calculs pulpaux qui ont été cultivés viennent de quarante-deux (42) dents non cariées, non atteintes de pyorrhée, et quatre-vingt-douze pour cent (92%) ont produit une pure culture de streptocoques.

2. Les racines ont aussi produit le même résultat avec des caractéristiques biologiques identiques à celles de la chambre pulpaire.

3. Nous présumons que même si la pulpe d'une dent contenant un calcul est encore vivante (quoique de vitalité affaiblie) c'est cependant une dent infectée qui agit comme foyer d'infection actuel, ou du moins possible, et qu'elle doit conséquemment être extraite.

REFERENCES

1. Black, G. V.: "Special Dental Pathology." 1915, p. 265 et seqq.
2. Hill, Thomas J.: Journ. A.D.A., 21: 820-844, 1934.
3. Kronfeld, Rudolf: Histopathology of the Teeth and their surrounding structures." P. 52 et seq., Ed. 1935.
4. Stafne, E. C., and Szabo, S. E.: Dental Cosmos, 75: 160-164, 1933.
5. Fish, E. W.: Brit. Dent. Journ., 53: 351-363.
6. Henrici, A. T., and Hartzell, T. B.: Journ. N.D.A., 8: 213-216, 1921.
7. Burchard, H. A., and Inglis, Otto E.: "Textbook of Dental Pathology and Therapeutics," 1912, p. 437.
8. Maximow, A. A.: "Textbook of Histology," p. 473.
9. Dieck, W.: Korr. f. Zahmaertze, 51: 138, 1927.
10. Weiss, L. R.: Dental Cosmos, 69: 750, 1927.
11. Barr, D. P.: Physiol. Reviews, 12: 593, 1932.
12. Klienmann, H.: Biochem. Zeitschr., 146: 161, 1928.

Article publié dans le DENTAL COSMOS de mars 1936.

l'Orthodontie (Suite)

par PAUL GEOFFRION, B.A., D.D.S., A.I.D.O. (R.A.)

Membre de l'Académie Internationale d'Orthodontie; Professeur Titulaire d'Orthodontie de l'Université de Montréal.

DE L'OCCLUSION

On peut dire qu'il y a trois sortes d'occlusion:—

1—L'OCCLUSION

2—L'OCCLUSION NORMALE "TYPE OU IDEALE"

3—L'OCCLUSION FONCTIONNELLE NORMALE.

L'occlusion c'est la relation des dents du maxillaire et de la mandibule lorsque les mâchoires sont fermées.

Pour l'orthodontiste, cette définition n'est pas suffisante car ayant à prévenir et à corriger les anomalies dentaires, il doit connaître au moins le *modèle type* sur lequel il pourra baser toutes ses comparaisons.

Ce modèle *type* c'est l'*occlusion normale "idéale"* que nous définirons "la relation normale non seulement des contacts, des surfaces, des cuspidés et des crêtes des dents quand les mâchoires sont fermées, mais aussi de leurs points de contacts proximaux et de leurs positions axiales" (Strang).

Cette occlusion idéale que nous venons de définir, n'est pas une chose immuable comme on semble le croire en certains milieux, au contraire, comme toutes les

parties de l'organisme, elle obéit aux lois du changement; se développe, se modifie selon l'âge ou les circonstances.

Voilà pourquoi, il y a quelques années, le docteur Friel proposait à la profession dentaire cinq périodes dans le développement d'une occlusion normale idéale et qu'il divisait comme suit:

- 1 PERIODE:—L'occlusion des dents temporaires après leur éruption complète.
- 2 PERIODE:—Les changements qui surviennent dans l'occlusion avant l'éruption des incisives et des premières molaires permanentes.
- 3 PERIODE:—Les changements qui surviennent après la perte des canines et des 2ièmes molaires temporaires.
- 4 PERIODE:—L'occlusion des dents permanentes chez l'adulte.
- 5 PERIODE:— Les changements qui s'opèrent dans l'occlusion de l'adulte.

Chaque époque de la vie a donc une occlusion idéale qui lui est propre et que nous allons maintenant étudier dans les pages qui vont suivre. Sans vouloir donner en détail tous les contacts des cuspidés avec les sillons et fossettes, tous les contacts des crêtes avec les embrasures et les sillons, ce qui nous obligerait à faire

un véritable cours d'anatomie, disons que toute occlusion idéale après l'éruption complète des dents temporaires, c.a.d. durant la première période de développement d'une occlusion normale, doit au moins posséder les caractéristiques suivantes:—

- (a) Les surfaces linguales des incisives supérieures recouvrent le tiers incisif des surfaces labiales des incisives et la moitié de la surface mésio-buccale des canines inférieures (Figure 1).
- (b) Les surfaces linguales des canines supérieures recouvrent l'autre moitié distale des surfaces buccales des canines inférieures et une partie de la surface buccale des premières molaires inférieures. (Figure 1).
- (c) La cuspidé mesio-linguale de la lère molaire supérieure fait son occlusion dans la fosse centrale de la lère molaire. (Figure 1).
- (d) La cuspidé mesio-buccale de la lère molaire supérieure fait son occlusion dans le sillon buccal de la lère molaire inférieure.
- (e) La cuspidé disto-linguale de la lère molaire supérieure fait son occlusion dans le sillon mésial de la 2ième

molaire inférieure. (Figure 1).

- (f) La cuspidé disto-buccale de la lère molaire supérieure fait son occlusion dans l'embrasure ou l'espace situé entre la lère et 2ième molaire inférieure. (Figure 1).

(à suivre)

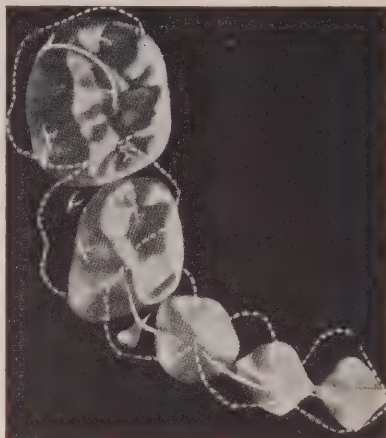


Figure 1.

Occlusion des dents temporaires (d'après Friel). Les lignes pointillées représentent les dents du maxillaire supérieur. Les flèches, les cuspidés des dents supérieures.

Le IVème Congrès des Dentistes de Langue Française de l'Amérique du Nord

Les préparatifs avancent à grands pas et l'on peut même affirmer qu'ils sont terminés. A voir l'enthousiasme et la satisfaction des organisateurs, on peut prédire un grand succès. Ce sera bien un congrès dentaire et cependant plusieurs professions y prendront part. Il y aura des médecins, des avocats et des spécialistes de toutes sortes.

Outre l'exposition des manufacturiers et des marchands, il y en aura une d'un caractère tout particulier et qui ne s'est jamais vue dans un congrès de dentistes. Ce sera: l'exposition des "passe-temps favoris" de ceux qui voudront bien confier leurs oeuvres aux organisateurs. Aussi nous prions tous les confrères qui pour leur plaisir se livrent à des travaux extra-professionnels, de vouloir bien se mettre en relation avec le président du comité des conférences.* Sculptures, peintures, dessins, petite menuiserie, métallurgie, collection de toutes sortes, enfin tout ce qu'on peut imaginer de travaux manuels, artistiques ou scientifiques feront l'objet d'une exposition particulière qui ne manquera pas d'être fort intéressante.

* Dr Gérard DeMontigny, 397 est, Bd. St-Joseph, Montréal.



"PACIFIC FLIGHT" by courtesy of "L.A." of Saturday Night

• 187 •



F. C. HARWOOD, D.D.S., L.D.S.,
Moose Jaw, Saskatchewan.

Past-President, Western Canada Dental Society.

Past-President, Dental Council of Saskatchewan.

Past-President, Moose Jaw Dental Society.

Member, Saskatchewan Dental Examining Board.

Associate Editor for Saskatchewan, of the Journal of
the Canadian Dental Association.



The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, MAY, 1938

NO. 5

Infection of the Jaws*

by FULTON RISDON, M.B., F.R.C.S., (C), Toronto, Ontario

THERE are two main considerations which should be given to the treatment of the infected jaw, first that of soft tissue, and second that of hard tissue. Soft tissue may become infected by contamination, trauma, or solutions which are introduced at the time of a local injection. Prominence should be given to the first mentioned, that is, infection which has been introduced either by the patient, or at the time of operation. I do not believe that trauma enters seriously into our consideration, except that tissues which have been used unkindly will heal poorly, but are not necessarily infected. The patient is more or less immune to the normal bacteria which are always found in the mouth, so consequently the operator should view his technique very carefully. For example, in the obstetrical department of a large hospital, when infection is noted, it is the practice to immediately culture all suture material, prepared gauze, anaesthetic material and anything relative to operative equipment; furthermore, all attendants, such as nurses, doctors and orderlies, have their noses and throats cultured to eliminate any carriers. So it would follow in this work that contamination from without should be blamed, at least in part, if infection has developed and every possible method of investigating the source

should be pursued. I am certain that you will agree with me that the solutions as prepared today are safe and free from contamination; at least that has been my experience, as only on very few occasions have I seen excessive sloughing (which may or may not mean infection) from the use of a hypodermic. One could imagine, however, that if too much solution were introduced too rapidly, sloughing would occur due to pressure, but seldom would this infection invade the bone. Further, I am sure that you have observed that the healing properties of oral tissue are excellent and I would like to feel, from my surgical experience, that given a case even with some discharge from a sinus, there would be little or no reaction unless I were to introduce bacteria from without. I do not wish to weary you by following this line of reasoning further, only to say that we must at all times give consideration to contamination of the wounds from without, and adopt a most introspective attitude.

CHANGES WITHIN THE BONE

In reference to changes within the bone, I believe it is always wise to consider infection first as periostitis, where we have an accumulation of fluid separating the periosteum from the bone, second

* Read before the Winnipeg Dental Society, February 9, 1938.

osteitis, which means inflammation of the compact bone, and third osteomyelitis, which means infection of the medullary or central section of bone. I know that at times it is not possible to differentiate these conditions under these headings, but still it should be remembered that if the periosteum is detached from the underlying bone by a collection of fluid and a space is allowed to exist for any length of time, the bone in that area is likely to die. Consequently, the operator should overcome this disability by a free incision which would permit drainage so that the tissue may fall into its original position on the periosteum. In considering osteitis, I believe this occurs in a percentage of cases where the infection is of the milder form and nature is able to establish her combative forces, and by so doing limit the spread of infection, and while there may be considerable discomfort, there is less than when the medullary portion is contaminated, and consequently one could make a differential diagnosis largely from the symptoms. With a periostitis there is less discomfort and a lower temperature; with osteitis, more pain of a throbbing character; and even more still in the case of osteomyelitis. In the latter, the patient has a marked elevation of temperature and all the signs of an inflammation with the possible exception of swelling in the early stage.

PREVENTION OF INFECTION

As a profession we are concerned with the prevention of infection and what methods have we at our disposal? If we consider that the patient is coming to us in most cases for a simple extraction and the surrounding tissue is normal in colour and that any variation from this normal appearance has been caused by trauma or introduced infection, should we not investigate all methods whereby

we can eliminate these unfavourable conditions?

In discussing prevention, there are a number of points which should be given consideration; first, general condition of the patient; second, trauma; third, type of operation and its duration; fourth, extent of necessary removal of the periosteum, and fifth, ability to replace the periosteum as promptly as possible.

It is taken for granted that we are now discussing chronic infection. We first consider the general condition of the patient. This is a problem which rightly belongs to the family physician, but generally speaking, anaemias might be suspected, diabetes, or syphilis, and if a Wasserman and urinalysis is done and a differential blood count, a number of conditions such as radical changes in the blood, sugar in the urine, and a positive Wasserman should indicate clearly to us that no operation should be attempted at this time. The second consideration is trauma, which means not only the usual reaction to any operative procedure, but also means lack of delicacy in operating, and if so the tissues will not heal by first intention. At all times, incisions within the mouth overlying bone, should be made completely through to the bone, and in this way the periosteum may be stripped with as little reaction as possible. Third, there is the type of operation and its duration, and this fits in with the preceding paragraph. To conserve nature's reaction to surgical insult, the periosteum should be stripped as far as necessary, but seldom beyond that point, and consideration given to the length of time the periosteum will be held free of the bone. When the wound is closed the periosteum should be forced to its original position and maintained by suturing.

REPLACING PERIOSTEUM

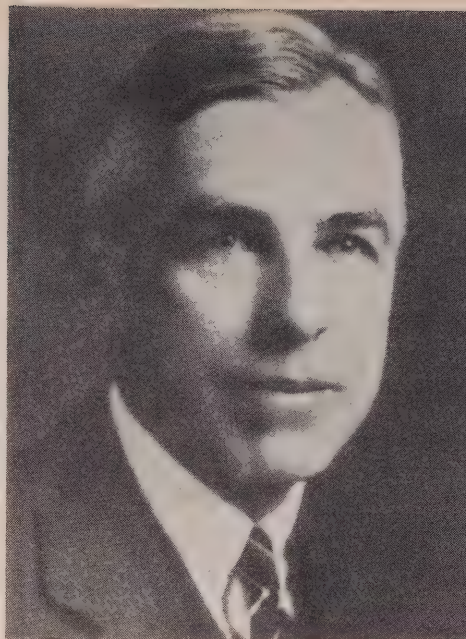
Occasionally owing to a previous reaction in an acute infection, considerable

FULTON RISDON

of the periosteum may have been replaced by fibrous tissue and in the stripping of this new tissue from the bone, considerable laceration may be seen and it may be impossible to prevent tears or button-holing of the tissue, but I am of the opinion that where bone has been left uncovered, consideration should be given to lowering of the bone in that area to the position of the periosteum. That is only a suggestion, but before closing the wound the surgeon should consider whether the bone will live when uncovered by its natural protective tissue. Allowing that the periosteum has been stripped of the bone to the necessary extent and the lesion within the bone properly dealt with and the cavity saucerized and the periosteum returned to position as indicated above and maintained by a suture, there should be little or no reaction. Should there be increased swelling and pain, it is likely that there has been further infection introduced, or that the present infection has spread to the surrounding bone. In this connection one should consider that when infection starts in the bone it may spread by continuity producing a pathological fracture.

PACKING

Nearly all bone cavities within the mouth should be packed for some time and to make the first dressing as painless as possible, I have tried soaking the iodoform gauze in sterile alboline, vaseline or paraffin and I believe that alboline is to be preferred and that the paraffin may be difficult to completely remove. All of these preparations are introduced into the



wound in liquid form by a medicine dropper, and it will not be necessary to continue the lubrication after the first dressing. When the opening is large, considerable time must elapse before closure, and after about two weeks a compound plug may be made which can be cleansed by the patient and re-inserted daily, and this is much to be preferred to the ordinary gauze packing.

INJURY TO NERVE

There is another point which merits our consideration and that is injury of the inferior dental nerve owing to acute or chronic infection. Patients may frequently ask "How soon may I expect return of sensation to the gums and chin?" This is a question that should receive an indirect answer, as in some cases the sensation returns within three months, and we have all seen cases where it has not returned at the end of five years. In the treatment of such cases, complete stereoscopic x-rays of the area should be taken and very careful inspection of these plates may reveal the fact that the area is free

of chronic infection. If the operator can assure himself of this fact, I believe he should then advise the patient to be patient, having massage or some light treatment, which more or less adds to his satisfaction, if not recovery. Further, removal of the fibrous tissue surrounding the nerve should not be advised, as in the subsequent heal-up fibrous tissue will recur in exactly the same area.

There is another consideration in the treatment of such cases and that is, seldom should the patient be asked "How is your lip?" Rather say "Your lip is improving." I have seen some cases where the inferior dental nerve has been exposed for one to three inches and it was possible to throw a ligature around the nerve and raise it from its bed, in certain cystic jaws, and free the bed of mucous membrane and then replace the nerve, and afterwards the patient did not complain of any prolonged anaesthesia. I have also seen cases where it was only exposed to sub-acute infection for ten days and the nerve being immersed in this infection and not divided, and anaesthesia of the chin persisted up to the fourth year. I am only making this statement so that I may give you my experience and this suggests to me that a very careful optimistic prognosis should be given.

ACUTE INFECTIONS

I have purposely left the treatment of the acute infection about the jaws, as operative measures should not be introduced in the earlier phases, and the patient may be rather dissatisfied for a period of two or three weeks because of considerable pain, swelling and discharge. The pain must be taken care of by a sedative and I believe in early cases, morphia one-quarter to one-sixth, especially at night, will be necessary, or some combination of codeia with acid acetylsalicylate, but seldom do I find luminol

or nembutol of any service in the acute stage. This should be supplemented by hot saline mouth washes, ninety degrees Fahrenheit, every two hours, with heat applied externally in the form of linseed poultices supplemented by an electric pad if you wish. Seldom are we concerned with any marked softening of the overlying tissue at this time and it is a method of applying heat. The more modern method is infra-red light and this may be recommended in certain stages but it is expensive and must be given either in the office or in the hospital. I do not use it very much as other means are more satisfactory and I may say that I seldom use ice or any of the intra-oral poultices.

I will outline a case of acute infection which came to me recently, giving what I consider to be the appropriate treatment. The patient, a woman of about sixty-three, had two remaining bicuspidis in the upper left side and the history I obtained was that these were removed because they were very loose and that the extraction was simple and done with all due surgical technique. When she came to see me one month later, she was having severe pain and had been for two or three weeks, and swelling and discharge and she was in a highly nervous state of depression. Her maximum temperature over a period of days when I first saw her was 100 degrees or less, and no marked increase in pulse rate and no suggestion that it was a general infection. In some cases it is difficult to tell whether the infection will be localized promptly by nature's protective forces and if not, general septicaemia will result, the treatment of which is not at all satisfactory unless some of the newer products such as prontosil or streptococcus antitoxin, promptly cause a change in symptoms. In this particular case it was quite evident that localization had occurred and the infection was limited to the alveolar process from the upper left lateral to near the tuberosity

and extended up on the outer wall of the antrum and on the inner wall, involving the palate bone. There were three sinuses from which sanguineous pus was escaping and the overlying tissue was red and on palpation, found to be soft. X-rays were taken which showed the alveolar process to be disintegrated upward on the palate and the outer wall of the antrum and that the antral space was opaque, suggesting that the floor of the antrum was involved, including the palate bone and alveolar process and outer wall of the antrum. As noted above, pus was escaping from three small pouting wounds which had been opened earlier in the course of treatment, from which small pieces of bone were being extruded. The patient by this time was quite comfortable and at each treatment, pus could be expressed from these openings, meaning that drainage was not sufficient. Consequently, an incision one and a half inches long was made in this area in the region of the alveolar process and packed with iodoform gauze. No attempt was made to remove any bone at this time. I believe in free drainage at this stage, limiting my operative procedure to such, and expecting that further sequestration will occur and at some subsequent time, through this same opening which will have to be extended, the floor and outer wall of the antrum will have to be removed, if not some of the palate bone.

In summarizing treatment for acute cases, liberal drainage should be instituted early, heat internally and externally applied, and sedatives for pain. The diet will likely be fluids, with milk of magnesia, one ounce daily, or every second day, and later some oral administration of iron, hypophosphates, or cod-liver oil. Secondly, treatment of the sub-acute infection, drainage, removal of small pieces of bone which have been partly extruded, mouth washes, milk of magnesia as indicated and likely at this time the patient

will not need sedatives. This period may be prolonged for some months, especially if in the lower jaw, and I have frequently maintained rubber tubes in the neck for months, changing them two or three times per week and encouraging the patient by stating that all these cases do well, provided that patience is shown by all concerned. Third, chronic cases where the condition is purely localized, perhaps recurrent swelling with discharge of pus and here drainage must be liberal and if there is a sub-acute exacerbation, that is swelling, pain and pus, there should be some delay for two or three weeks before any radical procedure such as complete removal of all infected bone is attempted. The space is then maintained by iodoform gauze packing, and later with a dental compound plug.

LEGAL ASPECT

As to the legal side of these cases, I believe that all patients that come to the office under such circumstances, where some untoward result such as described above has occurred, the dentist should be on guard and impress on the patient's mind the idea that good treatment has been used by all concerned and simply state to the patient that you cannot agree with him that there has been any carelessness exhibited, and even if you had been present at the time of the extraction or original operation you would be unable to state that the operator had been negligent in any way. I make it a practice to tell the patient that if I am subpoenaed, in spite of being in charge of his case, I will give evidence which will be beneficial to my colleague, simply because I can give no other opinion, and not because of professional ethics. We should be aware that all of us live in glass houses and the man who throws the first stone may find that it has a peculiar tendency to recoil.

901 Medical Arts Building.

A Submission to the Royal Commission on Dominion-Provincial Relations, Canada 1938

by THE CANADIAN DENTAL ASSOCIATION

MR. CHAIRMAN and Members of the Royal Commission on Dominion-Provincial Relations:

In presenting this brief to your Commission, it is our desire to review the existing dental services in Canada and to make certain observations regarding these services. In doing so, we hope to be able to assist this Commission to determine the relative concern and responsibility of the Dominion Government and the several Provincial Governments in the field of health and particularly dental health.

This brief is respectfully submitted in the name of the Canadian Dental Association, with a membership of more than 4,000 dentists and representing more than 99 per cent of the dentists practising in Canada.

The constitution of the Canadian Dental Association sets forth its objects as follows:

(a) To cultivate and promote the art and science of dentistry and all its collateral branches.

(b) To conduct, direct, encourage, support or provide for exhaustive dental and oral research.

(c) To elevate and sustain the professional character and education of dentists.

(d) To promote mutual improvement, social intercourse and goodwill among members of the profession.

(e) To enlighten and direct public opinion in relation to oral hygiene, dental prophylaxis and advanced scientific dental service.

(f) To disseminate knowledge of dentistry and dental discoveries.

(g) To have cognizance of and safeguard the common interests of the members of the dental profession.

(h) To have power to acquire property for the purposes of the corporation by purchase, deed, gift, bequest or otherwise, and to hold or administer the same.

(i) To publish dental journals, reports and treatises.

(j) To employ such other lawful means as are conducive to the attainment of the above objects.

The foregoing objects of the Canadian Dental Association clearly indicate that the dentists of this Dominion have taken cognizance of their responsibility to society for the advancement of dental science and the prevention and treatment of dental and oral disease.

DENTISTRY, A GENERAL HEALTH SERVICE

Dentistry, in all its phases, whether it be preventive or restorative, may unquestionably be regarded as a major health service. Dentists are, therefore, vitally concerned in the promotion of health and the prevention of disease.

Leading health authorities are agreed that dental disease is the most prevalent disease of the human race today. In surveys which have been made among all civilized peoples, dental disease has been found in varying degrees in the mouths of a very great majority of those examined.

The condition of the teeth and mouth bears an important relationship to general health. Some of the conditions which may directly affect the health are as follows:

J. S. LAPP
Chairman, State Dentistry Committee
Canadian Dental Association

1. *Oral-Sepsis.* The poorly kept mouth provides an ideal place for the incubation and growth of bacteria. Many millions of these are to be found in such mouths. Infection is harboured in the mouth more often than in any other part of the body. In the mouth it is readily accessible to treatment. The mouth is the gateway to the whole digestive and nutritional tract and from it infection may be and is frequently carried to other parts of the body.

2. *Focal Infection.* Infection at the tooth root-ends and in deep pockets about the teeth, is often forced into the blood stream and carried throughout the body, often lodging in susceptible tissues to set up a secondary lesion.

3. *Inability to masticate food.* This results in many ills of the digestive tract and the organs related to nutrition.

4. *Pressure due to impacted and suppressed teeth.* Patients are often hospitalized for mental and nervous conditions due to this type of pressure and recover upon the removal of the offending teeth.

5. *Irritation due to sharp edges of broken teeth, retained roots, etc.* These conditions contribute to discomfort and diseased mouths. Some authorities have pointed out the possibility of this being a causative factor in the production of cancerous lesions.



—Photograph by Ashley & Crippen.

It has been often said and quite appropriately, that "A nation's health is its greatest asset."

As a group who are primarily interested in this great national asset, we feel that our representations before this Commission are essential to a thorough understanding of the complete picture of national health in Canada.

RESPONSIBILITY FOR HEALTH

Dental disease knows no provincial boundary lines. While we may have regional and occupational variations in the incidence of dental disease, the problem of the prevention and cure of the dental ills of the people of Canada remains the same from coast to coast.

At the time of confederation, the practice of dentistry in Canada consisted chiefly of extraction of teeth and replacements by the use of dentures. Indeed it was the fortunate few who could have their teeth replaced once they were ex-

tracted. Dentistry in Canada was not organized as a profession until March, 1868. It is easily understood, then, why health as related to dental practice received no consideration by the Fathers of Confederation.

Public health as we know it today did not exist at the time of confederation. This would account for the responsibility for public health not being definitely fixed by the British North America Act as between the Federal and Provincial Governments.

Section 91, Clause 29 of the British North America Act places the residue of responsibilities (those that are not definitely stated as one of the classes of subjects under provincial control) very definitely upon the Dominion Parliament. Thus it may be and has been interpreted that public health is the responsibility of the Dominion Government.

While the maintenance and management of hospitals, etc., became the responsibility of the provinces under the British North America Act, matters of public health were not specifically mentioned. The Dominion Parliament by virtue of the Dominion Health Act of 1919 has assumed and added to its responsibilities, the following:

1. Co-operation with the provincial, territorial and other health authorities, with the view to a co-ordination of the efforts proposed or made for preserving and improving the public health, the conserving of child life and the promotion of child welfare.

2. The establishment and maintenance of a national laboratory for public health and research work.

3. The supervision as regards public health of railways, boats, ships and all other methods of transportation.

4. Such other matters relating to health as may be referred to the department by the Governor-General in Council.

5. The duties and powers of the min-

ister administering the Department of Health shall extend to and include all matters and questions relating to the promotion and preservation of the health of the people of Canada over which the Parliament of Canada has jurisdiction.

The rapid strides which have been made in public health in Canada since confederation have brought with them the need for legislation. The provinces, because of the lack of a definite interpretation of the British North America Act as to health responsibility and due to local public demand have assumed certain responsibilities in public health matters.

At present, the provinces have statutes to provide and maintain public health, but find it difficult to provide funds to support and extend them as they should be. As a consequence, the provinces have, by legislation and other means, permitted to rest upon the municipalities, a burden which the municipalities are unable, because of their restricted tax-base, to carry.

We would respectfully suggest that public health conditions in Canada today emphasize the necessity for a more definite understanding between the Federal Parliament and the Provincial Legislature as to their responsibilities in health matters.

We presume that this will be a matter for consideration by your Commission in its final recommendations.

PRESENT SERVICES

For purposes of classification the population may be divided as follows:

1. Those able to provide adequate dental services for themselves and their dependents.

2. Those able to provide only partial and inadequate dental services for themselves and their dependents.

3. Those unable to provide any dental services for themselves and their dependents.

4. Wards of Federal and Provincial Governments, etc.

Class 1 . . . Those able to provide adequate dental services for themselves and their dependents.

It has been our observation that many of these people allow their teeth to decay and become a menace to their health. This situation would be improved if nationally supervised public dental health educational programs were inaugurated.

Class 2 . . . Those able to provide only partial and inadequate dental services for themselves or their dependents.

This group represents a large percentage of our population. On the whole they are a very worthy group, striving to live independently and to be good citizens. While we have had and may always have a large percentage of our citizens in this group, their numbers have been greatly increased during the depression years.

Inclusion in this group depends largely upon income as related to responsibility. In this category we find people in many and varied occupations, such as workers in industry, merchants, farmers, farm workers, office workers, government employees, clerks, professional people, etc. The people of this class, while able to procure a limited dental service, usually delay visiting the dentist until dental disease is well advanced. In our opinion, the Federal Government should be much concerned about the physical and mental welfare of these people and should make a study to determine the best means by which they could be assured the protection of adequate dental treatment. *Class 3 . . . Those unable to provide any dental services for themselves and their dependents.*

In this class we have a large group of Canadian citizens, who, although they are able to keep off the relief rolls, have no funds available for health service. This

group, while making an honest effort to avoid becoming a burden to their country, are less fortunate as far as health measures are concerned than those of this class who are actually on relief. There are very few avenues through which they may obtain any dental treatment. Consequently, their dental health is almost entirely neglected and much suffering is usually experienced before they finally go to a dentist. The dentist usually cares for their immediate needs without charge. This has brought a considerable burden upon the private dentists.

A few of our hospitals provide a limited low-fee service for this class through the out-patient clinics. In most cases, however, these people are called upon to pay a fee. Consequently few are able to obtain these services. In a few large centres, dentists in co-operation with municipalities or welfare organizations, have opened public clinics. The Dentists, giving their services gratuitously, the scope of these clinics has been limited to the most urgent cases.

Those of this group who are actually on relief are provided with an extremely limited dental service. In some localities, only the extraction of aching teeth and the repair of dentures; in others, certain plastic fillings of a preventive nature. In many localities, no dental service is provided for these unfortunate people.

We understand that the Federal Government has established as a definite national policy, by subsidy to the Provincial Government, for the provision of food, clothing, shelter and fuel to those actually on relief. While this may have been inaugurated under what was understood to be a national emergency, it is almost certain that in the future, the provision of the above named necessities to those who cannot provide them for themselves must continue.

The Federal Government up to now

has assumed no financial responsibility to supply dental care to these people. This has become the burden of the municipality or the Provincial Government. As has been pointed out earlier in this brief, these bodies have not the funds to properly provide this very urgent necessity. As a consequence, members of the profession, from a humanitarian standpoint, have supplied a great deal of the essential services to these people at their own expense. We believe that this should be the responsibility of the state and not the dental profession. We would suggest that the Federal Government make a study of the best means to provide necessary dental treatment to this class and take the necessary action to assume a proportionate responsibility with the provinces in the provision of this treatment. *Class 4... Wards of the Federal and Provincial Governments; dependent children, soldiers, Dominion police; Indians; inmates of mental hospitals, institutions, penitentiaries and hospitals; and back-to-the-land classes.*

A large percentage of this class are receiving fair dental treatment. Most applicants are attended to; many routine examinations are conducted and dental services rendered accordingly—although this is not the case in all departments mentioned.

DENTAL SERVICES FOR YOUNG PEOPLE

Present conditions in Canada make it difficult, if not impossible, to provide the dental treatment needed by all the people. It is much less difficult and much less costly to maintain dental health than to restore it after it has been lost. Therefore, the solution would seem to be to provide adequate preventive and restorative treatment for the young people of Canada. At present the services available for these young people are very limited. Some cities have dental services avail-

able in elementary schools. The results achieved by many of these services are to be commended. In many areas it has been found more economical to provide services for these children by contracting for the facilities and time of private dentists. In sparsely settled districts, and districts unserved by private dentists, it has been found practical to provide travelling clinics to serve these young people. While the above types of services have been provided in a few localities, it may be said that on the whole, the services available for this class in Canada is seriously inadequate.

In our opinion, the Federal Government should assume responsibility for necessary dental treatment for the children of Classes 2, 3, and 4, above, from the ages of two to fifteen inclusive, and should take the necessary action to make these services available with the least possible delay.

It is our opinion that the Federal Department of Health, in co-operation with the Provincial Departments of Health and Education, should provide dental health education and examination services for the young people. This could probably be done most effectively and economically in the schools.

We feel that every child in elementary and secondary schools in Canada should have a yearly dental examination made in the schools by a dentist. Dental health talks could be given in class rooms or assembly halls at the time of the examination. This survey and educational effort should be independent of clinical services, but related to them for matters of record, etc.

Dental health teaching should be carried out by teachers or nurses in elementary and secondary schools as part of their regular health demonstrations and health training.

PUBLIC DENTAL HEALTH EDUCATION

In our opinion, there is much need for government financial support for a nationally organized effort of public dental health education. Our present knowledge of preventive measures, if properly applied, would reduce materially the incidence of dental disease.

Provincial and local dental associations have been carrying on public dental health education, often co-operating with other health agencies, service clubs, etc. This work, while commendable, has been imperfect in co-ordination, consequently losing much of its effectiveness.

The Canadian Dental Hygiene Council, a lay organization, whose function is to educate the public in preventive dentistry, has been doing effective work throughout Canada in this field in conjunction with organized dentistry and official departments of health and education. That the work of this organization has proven its worth, is evidenced by the financial support which it has received from the Dominion and Provincial Governments. Their work, however, has necessarily been lacking in continuity, due to insufficient financial support.

It would seem logical that when this pioneer work has been established and proven by voluntary organizations on a national scale, it should be taken over and carried on by the official Public Health Department of the Federal Government in co-operation with the Provincial Departments of Health.

RESEARCH

The most important aim of dentistry is to find why there is so much dental disease and to prescribe ways and means to prevent it. This means research.

Dentists have always found difficulty in enlisting private financial support for research. If physicians were permitted to list dental disease as a pre-

disposing factor in the cause of death, on death certificates, there would probably be a much greater public respect for dental research and private donations would most likely have been attracted to this field.

The ten most frequent causes of death today are listed in order of frequency as follows: Heart disease, cancer, pneumonia and influenza, cerebral haemorrhage, nephritis, tuberculosis, diabetes, diarrhoea and enteritis, appendicitis and syphilis. There is much evidence available in support of the theory that dental disease may be a causative or contributing factor in a large percentage of the above listed diseases.

As we have stated before, a very large majority of the people examined in industry need dental treatment in varying degrees. In a recent survey made in the elementary schools of nine Canadian towns, it was found that an average of 88.9 per cent. of the children had dental defects. The average number of defects per child was 4.97. We feel that this situation should attract the attention of the Federal Department of Health and that the Federal Government should consider providing grants for dental research, particularly as to the prevention of dental disease and the relationship of dental disease to other systemic disorders.

Canadian dentists have always taken a leading part in dental research. Many of their works have and will go down as outstanding achievements in dental history.

Canadian universities have always encouraged research both for graduates and undergraduates and have added much to our knowledge both in the field of preventive and restorative dentistry.

The Canadian Dental Research Foundation, an organization of the dental profession in Canada, have published many bulletins on the results of research

and have distributed them to members of the profession and other interested persons. Their work has been, to date, supported entirely by donations from dentists.

We believe that the Dominion Government should stimulate our efforts in research by making grants to recognized and properly organized groups or universities, particularly in the field of prevention of dental disease. These grants should be contingent upon the standard and quality of the undertaking.

HEALTH INSURANCE

In Canada today we see signs on every hand of social and economic changes. Our experiences of the past few years have brought clearly before us the desire and need of a very large group of our citizens for better social security. We have observed that the leaders of our Government have taken heed of this necessity. We feel assured that in Canada we have a people with sufficient soundness of thought, that they will assist the leaders of our Government to bring about any necessary changes by the process of evolution.

Along with the desire to provide better living conditions and those essentials necessary for the ordinary comforts of life, there is evidence of an increasing demand for the solution of the problem of securing adequate health protection for low-wage groups and indigents, on the basis of an adequate service with adequate returns for those rendering that service. There are many both within and without the healing professions who believe that health insurance is the solution of the problem.

The Canadian Dental Association some years ago appointed a committee to study the matter of state dental health in all its aspects including health insurance. This committee has been unable to find avail-

able information at present in Canada to show—

1. The amount of work necessary to restore dental health in the mouths of those who would most likely need and seek the protection of health insurance.

2. Whether it would be financially and physically feasible or not to inaugurate a system of health insurance on a Dominion-wide basis for those who cannot provide health service for themselves.

3. To what extent the insurance principle could be applied to dental treatment for the group that would most likely be included, if a system of health insurance should be introduced in Canada having in mind that practically all of those people included would require dental treatment, either preventive or restorative.

The Canadian Dental Association maintains that if dentistry is included in any plan of health insurance in Canada, dental services should be made a statutory benefit.

While the Canadian Dental Association realizes and is convinced that a very great need exists among our people unable to afford the necessary services to have a healthy condition in their mouths, it is, as yet, neither advocating nor opposing any system of compulsory contributory dental health insurance, because of lack of definite information regarding the amount of services necessary or the cost of same.

Before introducing any system of health insurance this information should be acquired in one of the following ways:

1. By setting up an experimental area, or areas, of compulsory contributory dental health insurance in each province with the object of obtaining information from which further decisions may be made.

2. By following the suggestion put forward at the conference of Provincial Ministers of Health at Ottawa in April, 1935. At this conference a resolution

favouring the appointment of a Royal Commission to examine into the whole question of health service to the people of Canada, was passed unanimously.

While the Canadian Dental Association would hesitate to recommend to this Royal Commission that another Royal Commission be appointed, we feel, however as stated above that it would be wise to obtain certain information, that has not yet been accumulated, before any system of compulsory dental health insurance is inaugurated in Canada.

If the Federal Government should see fit to launch such an enquiry we submit that we believe that only a dentist would have the understanding of dental problems that would be necessary if all the facts pertaining to dental services and dental needs were to be collected. We would, therefore, respectfully suggest, that if such enquiry is proceeded with and in the interests of the health and well-being of the people of Canada, a dentist should be included with those appointed to conduct the survey.

The Canadian Dental Association stands ready to give guidance or assist in any way, not only in securing the desired factual information, but in the formulation of an ultimate plan if the Government should see fit to introduce a system of health insurance either federally or provincially.

SUMMARY OF RECOMMENDATIONS

In order that we may make more clear our conception of the responsibility that should be assumed by administrative bodies in Canada for the protection of the dental health of the people, we beg to submit the following suggestions:

We feel that the Dominion Government should accept a larger share of the responsibility with respect to health by the following means—

1. By further building up of a Department of National Health with a staff of

recognized ability which would be in a position to give leadership and accept more responsibility for health in Canada.

2. By providing for the separation of the Department of National Health from the Department of Pensions. (We feel that the Department of Pensions at present must require a large measure of attention from the Minister and his Deputy and that the best interests of the people would be served by the creation of a separate Department of Health.)

3. By establishing a dental division in the Department of National Health under the direction of a dentist, who should be known as the National Director of Dental Services. His status should be the same as the head of any other division in the Department and he should be responsible directly to the Minister, or his Deputy. In order to secure the greatest measure of co-operation and support from the dental profession and consequently, in the best interests of the people, this appointment should be made in consultation with organized dentistry in Canada.

4. By bringing about a more definite understanding between the Federal and Provincial Governments as to their responsibility in health matters.

5. By making a study to determine the best means by which those people who, at present, can only provide partial dental care for themselves and their dependents, may be assured the protection of adequate dental care.

6. By making a study to determine the best means to provide necessary dental treatment to those who cannot provide any dental services for themselves and their dependents and take the necessary steps to assume a proportionate responsibility with the provinces to provide this treatment.

7. By assuming responsibility for the provision of necessary dental treatment for all young people in Canada from the age of two years to fifteen years inclu-

sive, whose parents cannot provide these services for them.

8. By co-operating with the Provincial Departments of Health and Education to provide for yearly dental examinations by a dentist for all children in elementary and secondary schools in Canada, also classroom educational talks by the dentist to the children at time of examination.

9. By providing supervision by a dentist and financial support for public dental health education on a national scale. (Some of the pioneer work in this field which has been established and proven by voluntary organizations, should be taken over and carried on by the official Public Health Department of the Federal Government.)

10. By providing direct grants to certain organized groups for dental research, such grants to be contingent upon the standard and quality of the undertaking.

11. By either establishing experimental areas of compulsory contributory dental health insurance to obtain statistical data from which further decisions may be made, or appointing a Commission to examine into the whole matter of health conditions in Canada. Before inaugurating a system of health insurance, either

federally or provincially, a dentist should be included on such Commission.

Dental health is essential to physical well-being and the Federal and each Provincial and Municipal Health Department should have a dental division under the direction of a well qualified dentist.

CONCLUSIONS

The possibilities by which public health measures and practice can add to the happiness and welfare of our people are becoming increasingly apparent. The realization of these possibilities has been restricted because of uncertain jurisdiction and inadequate financial support.

It is our sincere hope that your Commission may so define the field and responsibility for public health, as to make possible more efficient services with increased financial support, so that the benefits of modern public health may be made increasingly available to a larger proportion of our population.

All of which is respectfully submitted.

R. L. PALLEN.

*President Canadian
Dental Association.*

J. S. LAPP,

*Chairman of Committee
to prepare this brief.*

If dentistry is to occupy a prominent position in public health service, it will have to arrive with something better than a pair of extracting forceps in one hand while it holds up a set of artificial teeth in the other; for in such things there is a message, not of hope, but of tragedy—a message, not of triumph, but of failure. The call to-day is for a more enlightened message that will reflect the progress and achievement upon which we pride ourselves. Yet, if the knowledge we now possess is to take us further on our way, it demands that the profession shall not only advance with the gospel of prevention on its lips and with a finger pointing to a better means of salvation, but also that it must exert every fibre of its organization to make this salvation an accomplished fact by a service inspired by a deeper consciousness of its responsibilities to the younger generation, so that the latter might be spared much of the disease and mutilation so painfully apparent in the mouths, and reflected in the features of the present adult population.—Professor J. Reid Burt, in New Zealand Dental Journal.

The Future of Periodontia for the General Practitioner*

by S. CRIPPS, B.A., D.D.S., Montreal, Quebec.

GENERALLY speaking, periodontia is treated too lightly, and with crass indifference by the vast majority of practitioners, and is certainly not given the proper respect, which it most assuredly deserves, in the field of curative dentistry in general, and in that of preventive dentistry in particular.

Only when the problems connected with periodontia have been analyzed will their simplicity be evident, and only when the solutions are applied by the general practitioner will the dentist be justified in assuming his role in the healing art.

The young man who has chosen dentistry as his vocation enters the dental school with a mind unhampered by preconceived ideas and is capable of being moulded to any form.

Generally speaking our dental schools under present forms of instruction are either incapable of, or not sufficiently interested in taking advantage of this state of affairs. Restricting myself particularly to the subject of periodontia, I have time and again heard it said at meetings of various dental societies and clinics that the members are not interested particularly in periodontia, and when pressed for a definite reason for their indifference, they reluctantly admitted that this was actuated by the meagreness of their knowledge of the subject, and sole blame for this unfortunate ignorance on their part was invariably laid at the door of the dental faculty of the several universities, which had graduated these men.

This was so very ably stated by Dr. Grace Rogers Spalding in an article entitled "Gingivitis," which appeared in the November 1936 issue of the A.D.A. Journal, as follows, "While there are certain dental schools, that offer excellent courses in periodontia, there are still too many in which little interest and no enthusiasm regarding the subject are in evidence. Recent graduates from these schools are not interested in the subject and are unable or unwilling to treat with success even the simplest form of periodontal lesions, gingivitis.

"It is a reflection on dentistry that the pressure has had to come from the public demand for relief from the symptoms of periodontal disease. Dental education should have taken the lead in this, and no dental student should have been graduated in recent years from a Class A school who did not recognize the importance of the health of the supporting tissues of the teeth and who was not thoroughly familiar with the aetiology, diagnosis and treatment of periodontal disease.

"The report of the committee on the Survey of the Dental Curriculum was eagerly anticipated, but to those especially interested in periodontology was disappointing because of the very limited allowance of time for instruction in the most fundamental part of dental practice, that relating to the supporting tissues of the teeth.

"The dental student has full confidence in the dental faculty of his carefully selected dental school on entering college

*Read before the Adirondack Dental Society, Plattsburg, N.Y.

and expects to be instructed in the essentials of dental practice. If, on graduation, he has an indifferent attitude as regards the care of the supporting tissues of the teeth and the requirements for their preservation and treatment, he is not fully equipped to practice dentistry or to meet the needs of his patients. The alibi used by some dental educators that 'dental students do not like to treat gingivitis or periodontoclasia and are not interested in oral prophylaxis' is an admission of failure to mould the student's opinions and promote his ability to estimate values in dentistry. The successful teaching of any subject is largely dependent on the knowledge and enthusiasm of the instructor."

Perhaps I can best express what periodontia means to me now by a series of comparisons between my former and present views on this subject.

DIAGNOSIS

A new patient presents himself in my office for dental examination. Examination of the mouth does not merely begin and end with all eyes on the teeth proper. The gingivae and surrounding soft tissues are now assuming a commanding role in line of examination. After a careful survey of the mouth, my findings are charted, and I begin a search for a correct diagnosis, followed by necessary treatment. The two phases, diagnosis and treatment, should not be confused, as they too often are, with the dentist planning his treatment of the case before having established a sound diagnosis. *The diagnosis should always dictate the subsequent treatment.* From a diagnostic standpoint, the subject of radiograms should be emphasized. Once having utilized the x-ray machine for this type of work, its use becomes imperative. Just as you would no more think of practicing root canal therapy without a good set of radiograms, so should you plan diagnosis and treatment in periodontia.

My clinical findings demonstrate that there is an irritated purplish line around the necks of the teeth, particularly around the lingual surfaces of the upper and lower molars. Due to a crowded condition of the lower anteriors, cyanosis and considerable puffiness of the dental papillae are evident. The gums bleed upon the slightest provocation from either finger or tooth brush, and strange to say, the patient does not complain of either pain or discomfort.

This is a very common condition called gingivitis and according to Spalding, Dr. G. V. Black examined 500 cases, and only 5% were entirely free from this scourge. Of the remaining 95%, 37% had gingivitis due to imperfect dental operations. In addition to an air of indifference which most of us carry, we are being accused of actually producing 37% of cases of gingivitis.

From a preventive point of view, it has been conceded that the treatment and correction of gingivitis are easily within the ability of the average dentist. What is the alibi? Well, to be frank—"dentists do not like to clean teeth." Are we going to dismiss the subject with this confession? I should hope not.

Continuing this imaginary examination, I find two edentulous spaces in the lower jaw, identified by areas formerly occupied by the six year molars. What is the average attitude of our colleagues toward the subject of spaces in the jaws?

Probably most of you have learned the lesson of the edentulous space with all of its subsequent hazards. To me, at one time, a space meant nothing more than an area between two teeth, replacement being a sort of optional suggestion and never stressed at any time. Today, in my mind, the question of replacing missing teeth is no more a question, but a necessity, as absolute as that of excavating and filling cavities in teeth.

S. CRIPPS

This point can be brought home to you by quoting from Dr. McCollum's article entitled "Replacing Missing Teeth," in the A.D.A. Journal, March 1937, as follows: "That the human body can tolerate many deficiencies and mutilations and still retain the spark of life is amply demonstrated every day. Thousands of people exist to a ripe old age minus one or several of the parts or functions necessary to the full enjoyment of life." "Man is a human being only when he is living at full capacity, participating in enjoyable, useful, social correspondence, unabashed by deficiencies and burdening no one with his infirmities. By the same sort of observation, dirt and filth are good for children, reckless abandon is the proper course in our traffic problems, and the use of any sort of antiseptic, germicidal or cleansing precautions are useless and silly in surgical procedures.

"It is obvious that the ability to masticate well depends on the presence of teeth, but it evidently isn't so obvious that the maintenance of the highest state of oral health is dependent on the presence of sound teeth properly related to each other and rightly correlated to the motions of the mandible. There can be no doubt that the mouth maintains itself in the highest state of health when the bio-mechanical forces in the mouth are most harmonious. Neither can there be any doubt about the assertion that the mouth destroys itself when its parts are missing or misrelated, either by accident



or by nature, and, much as I regret to say it, as the end-result of poor dental practice, which, in spite of its harmfulness, is comfortable and satisfactory to the patient. This principle should be the basis of every dental effort. Don't allow the mouth to ruin itself when remedies are at hand.

"A mouth with one or more teeth missing may chew food almost as well as though equipped with a full complement of well aligned teeth; that is, well enough to insure proper metabolism; but it does so at the expense of its own physiologic integrity. The moving and drifting of the other teeth following the loss of some of the teeth is accompanied by pathologic consequences just as any other organ of the body is injured by defects in its organization. A defective heart may pump the blood quite effectively and satisfactorily as far as the rest of the body is concerned. That is why the patient may be entirely unconscious of any heart disease, but it does so at the

expense of its own well being. It cannot be repeated too often that a defective mouth may chew the food, just as a defective heart may pump the blood, but the pathologic processes of disintegration are in principle the same in both instances. As the defective heart, in a spectacular manner, eventually destroys itself and the rest of the body, it should be apparent to dentists that a defective mouth destroys itself, and while not so spectacularly, as surely, destroys the rest of the body."

OCCUSION

The occlusion is the next item which requires checking. This subject is of such tremendous importance in its intimate bearing on the health of the teeth and the investing tissues, that it takes up a good number of the chapters of Stillman and McCall's classic—"Principles of Periodontia." This topic will again be lightly touched upon, when considering treatment of the case.

TREATMENT

We have now come to the final phase of our history—*treatment*. Discussion of this subject by a variety of men has already filled many quires of paper. I do not intend to treat this subject intimately, but merely touch some of the high lights. There are no stereotyped methods for the treatment of periodontoclasia. It must be modified to suit each individual case.

The days of drugs and nostrums are over, and have given way to instrumentation. Scaling and curetting are now all important operations, to be executed with all the care and skill which the dentist can command. Calcific deposits are removed as thoroughly as possible, the root surfaces are planed free, and necrotic tissue removed.

Incidentally, medication can be utilized in eradicating granulomatous material by the use of sod. sulphide and 50% phenol. Correction of occlusal faults is next

undertaken. At last we have found use for stones other than for grinding dentures and gold inlays. Functional occlusion is essential, prior to attempting to remedy any periodontal disturbance. As Leonard points out, grinding is a treatment to be used sparingly and is by no matter of means a panacea.

Last, but certainly not of least importance, is the matter of the patient's co-operation. Without this our most skilful services have decided limitations. The patient must be impressed with the idea that he and not the dentist must keep his mouth clean. Regular appointments should be made for purposes of check-up, and the patient recalled whenever it is considered necessary.

SUMMARY

I would like to reiterate the following points:

(1) *Mouth examination.*

During a mouth examination, observe supporting tissues, so that one could never say that an incipient Vincents' infection has passed through your hands without recognition.

(2) *Edentulous spaces.*

Fill the edentulous spaces whenever possible. You will not find your patients lending deaf ears to your suggestions, if the entire ruinous process which invariably follows failure to render replacement, is adequately explained.

(3) *Instruments.*

Reduce your scaling armamentarium to the minimum number of instruments. Learn to manipulate these, skilfully and rapidly. Keeping a sharp edge on your instruments is as important in this type of work as it is in operative dentistry. Calcific deposits should be removed and not smoothed.

(4) *Occlusion.*

Traumatic and traumatogenic occlusion must be reduced, if any success in this type of work is to be expected. In

this department nothing but articulating paper, quantities of heatless stones, and lots of water are required. You may start with trimming for purposes of the aesthetic and when that is achieved, half of your work is done. Buccal cusps of the upper bicuspids and molars and incisal edges of the lower anteriors are the most frequent offenders. The underdeveloped lingual cusps of the upper molars can usually take a little flattening. These are merely a few points in the realm of traumatic occlusion. All ground surfaces must be highly polished.

(5) *Toothbrush instruction.*

Remind your patients to bring in their tooth brushes with them the next time they come to your office. Fifteen minutes should be spent with them determining their methods of brushing, followed by a demonstration in their mouths with a

mirror before them, of your interpretation of an approved toothbrushing technique. The purpose of this visit is twofold. In the first place there is some chance of changing an entirely incorrect method into one that can bring results, and secondly, I think that an appointment of this type tends to emphasize in the patient's mind the importance of the toothbrush.

CONCLUSION

If the dentist of tomorrow does not learn to practise intelligently the treatment of gingival lesions, while at the dental school, the public will be deprived of an essential service which it deserves because of its investment in dental education.

1414 Drummond St.

It Can't Happen Here?

by S. G. McCaughey, Ottawa, Ontario

HEALTH Insurance in one form or another is a plank in the platform of every political organization in Canada. This is neither original nor indigenous to Canada; it is the trend of the times, the outcome of both evolutionary and revolutionary trend of thought.

In some countries it has led to the virtual socialization of medicine and dentistry, because in some minds Health Insurance is synonymous with State Medicine and State Dentistry. That this has not produced the best results for the public or for our allied professions seems to be the opinion of those from this continent who have investigated the European situation and have expressed their views in recent articles in dental magazines.

We may adopt phlegmatically the view "It Can't Happen Here," but that is dangerous optimism. One of the leaders of one of the political parties was asked some time ago by the writer, "If your party gained power what would your first legislation be?" The answer was, "Nationalize first the banks, then medicine and dentistry."

The Health Insurance Act has been passed in British Columbia but has not yet been put into force. There is no desire to evaluate this Act as either good or bad; it may be a splendid piece of legislation but even if it is not, organized medicine found that an organization or society purporting to speak with authority for a profession must have a paid-up

membership of more than fifty per cent of the total number of the profession practising within the area represented by the particular legislative body before which it is appearing.

Profiting by this experience, the medical profession is attempting first to bring into active membership in its provincial societies the majority of those practising within each province and, secondly, to tie up those provincial bodies in the membership of the Dominion body. In this way provincial bodies may speak with authority for their own provinces and the Dominion body with equal force in Federal matters.

Our organization is somewhat better from the legislative aspect than was theirs, because a small amount of the annual licentiate fee in all the provinces of Canada is paid into the treasury of the Canadian Dental Association, thus making us *legally* members of the Canadian Dental Association, the Dominion body.

If, however, there could be some organic union between the federal and the provincial bodies and between the provincial and the local societies it would make our position more authoritative in both provincial and federal spheres.

Let there be one Dominion body:—The Canadian Dental Association with provincial divisions; for example, the Ontario Dental Society would become the "Canadian Dental Association, Ontario Division"; the local societies would become, for example, The "Canadian Dental Association, Ontario Division, Ottawa District."

Notwithstanding the fact that through our licentiate fee we are *legally* members of the Canadian Dental Association, can we at the moment say that we are ade-

quately supporting this important body in a moral or *financial* way?

To be effective any organization of this type must have adequate funds. Most of us carry every imaginable kind of insurance, yet the Canadian Dental Association, which at present is our only insurance against hasty and "politically expedient" legislation, is being left without adequate funds, depending upon the self-sacrificing efforts of a few men who are voluntarily giving their time and talents on our behalf.

Is it not time that we were "stabbed awake" by the necessity of the situation?

To use again the example of our medical friends; their fees to the Dominion body are sufficient to support a full-time secretary, to send him across Canada and even to Europe to make an intensive study of the conditions there under Health Insurance in its various forms.

The professions of medicine and dentistry can be of inestimable help to one another by close co-operation and in view of the progress already made by the medical profession, immediate action by us would be wise.

Our professional bodies can be of real service in helping to work out with fairness to the public and ourselves, the best methods to meet new conditions which a changing social order may demand. Our advice may be needed but it will only be heeded if our associations are properly organized, legally representative, and adequately financed.

It would be a shame if postponement on our part brought dentistry from its present high position to the "blood and vulcanite dentistry" of some parts of Europe.

Let us act before it is too late.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office," 314 Somerset Building, Winnipeg.

Practical Suggestions for Success in Practice

by S. JOSEPH BREGSTEIN, D.D.S., Brooklyn, N.Y.

THERE are no set rules which if followed will guarantee success. Reasons which many dentists and patients have ascribed as possible hindrances to success are:

1. Lack of sterilization in operative procedures. Always wash and sterilize instruments before patients' view. They do not know that the instruments in the cabinet were sterilized before they were put away. *But are they still sterile?*

2. Inadequate presentation of proposed dental services. Mouth mirror and explorer examination has very little value. Instead, the dentist must view a series of x-ray pictures and then properly evaluate his findings.

3. Unsteady hands in operating or too zealously causing force or pressure in the mouth. Use a fulcrum and operate burs with short intermittent cuts. Remember the patient is not the manikin head of dental college days!

4. Personal hygiene. Shave every day. Keep shoes polished. Eliminate odours of drugs or perspiration. Use a fragrant hand lotion.

5. Unkempt habits of operation. (a) Use napkins of gauze or paper to wipe instruments and not the shoulder part of the patient's towel. (b) Do not get patient's lipstick smeared over her face and mouth. Give her tissue napkins to remove all traces of the vermillion before

commencing dental service. (c) Do not dismiss the patient with particles of amalgam floating between his teeth; wipe it out with a piece of gauze held in the college pliers.

6. Clean gowns are professional requisites. Those with blood or polishing rouge streaks are as much out of place as gowns with neck bands scalloped from wear.

7. Chewing gum while operating is a pernicious habit and indeed does not add to professional dignity.

8. Smoking in between appointments might leave tobacco flavour on the fingers. Some patients object to that taste when the dentist has traces of it on his hands.

9. Cement, plaster, mercury and other dental supplies belong in their respective containers and not under the dentist's finger nails.

10. Looking out the window and humming while the patient lamentingly tells you that she can't wear her new dentures is discourteous and provokes a righteous indignation.

11. Dentists are expected to be gentlemen and to exemplify good breeding. Help patients in your office on with their coats. It is undignified to stand by while your guest struggles with her wraps.

12. Patients are not interested in your personal affairs. They are interested in receiving painless treatment dispatched

promptly and with benefit to their comfort.

13. When you discuss other patients with your assistant, might not the patient in the chair think that you do the same about him after he has left your office?

14. Blood stains and plaster stuck to the porcelain cuspidor do not suggest an immaculate operator or assistant.

15. Regard your patient as one who is seeking advice concerning his health and administer treatment accordingly. No matter what your economic condition happens to be for the moment never regard the patient as "next month's rent cheque."

16. Give credit to patients as reward for their fulfilment of past obligations. Don't disburse your investment, your time and your strength recklessly.

17. After surgery or a simple extraction sit down with the patient and give complete instructions concerning post-operative care. Prescribe drugs for the relief of pain. The psychology is just this—if a patient is forewarned that he might have some edema and then, if that occurs, the thought is, "Here is a dentist who knows his 'business.' He predicted that my face would swell but he assured me that it was quite a possible sequence."

On the other hand, the patient who wasn't told of post-operative possibilities comes back with alarm and amazement. "Why," he says, "I never had a swollen face before and I've had teeth out by other dentists."

18. Carve and polish all amalgams. Patients will show these restorations when their friends talk of dentistry.

19. Show your assistants the result of your work. Call them to the chair and admiringly demonstrate the restoration just completed. Pride of ownership for the patient is a wonderful thing!

20. Don't hurt the patient unnecessarily. Use analgesia, procaine or a topical obtundent. Remember, even animals dislike people who injure them.

21. Your business card is reflected in every well made inlay, amalgam and denture. Is it inviting?

22. Charge a fee for removing fixed restorations and return the gold to the patient. You are practising dentistry and are not in the precious scrap metal business.

23. Success in dentistry is much more than acquiring scores of patients, it is a matter of being the *right dentist*.—*From Dental Items of Interest, March, 1938.*

Conventions

71ST ANNUAL CONVENTION OF THE ONTARIO DENTAL ASSOCIATION,
ROYAL YORK HOTEL, TORONTO, MAY 16-18.

SASKATCHEWAN DENTAL ASSOCIATION, REGINA, MAY 29-31.

CANADIAN DENTAL ASSOCIATION (DELEGATES' MEETING),
VANCOUVER, JUNE 30-JULY 2.

PACIFIC COAST DENTAL CONFERENCE, VANCOUVER, JULY 4-8.

ANNUAL MEETING OF THE BRITISH DENTAL ASSOCIATION,
BELFAST, JULY 29-AUGUST 3.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM SASKATCHEWAN:

When a patient presents himself with considerable pain and swelling, due to infection, around a partially erupted lower third molar, what is the best method of treatment?—*Dr. X., Saskatoon.*

REPLY FROM NOVA SCOTIA:

This information is by no means a complete clinical picture. However, I shall try to visualize frequent cases which are presented in our offices, such as vertical and mesio-angular impactions with considerable overlying dense gum tissue. This is not attached to the enamel, but loosely held over the crown.

In these cases infection readily enters the pocket thus formed, and gradually penetrates the connective tissue causing an edematous condition, pressure pain, and in some cases trismus.

I recommend a general study of mouth conditions, questioning as to any recent illness, and the present health. If the conditions are favourable and you can establish drainage, evacuation of pus, by general anaesthetic; then I would complete the operation to relieve the condition.

When the case is an acute one, I attempt to lightly and aseptically raise the overlying flap, and examine for any evidence of pointing, which sometimes can be advantageously used as a means to establish drainage.

With considerable success I have used

hot saline mouth washes over the area, and extra-orally hot antiphlogistine to reduce the swelling. — *Gordon Ross Hennigar, Halifax.*

REPLY FROM QUEBEC:

Use sedatives for pain, cold moist dressings to outside of face, hot mouth-washes, local application of eight per cent chromic acid, followed by peroxide of hydrogen, daily, until inflamed area subsides. Postpone removal of tooth until area has remained quiet for some days, thus decreasing the possibility of an infected blood clot following removal. Never suggest forcing mouth open when trismus is present.—*F. W. Saunders, Montreal.*

REPLY FROM ONTARIO:

When a patient presents himself with considerable pain and swelling, due to infection, around a partially erupted lower third molar, the best method of treatment, in my opinion, is:

- (1) To have the patient go to bed.
 - (2) To prescribe hot mouth washes for the inside, and hot towels on the outside of the face.
 - (3) To have the patient drink plenty of water, and go on a liquid diet.
 - (4) To take salicylates; this helps control the pain, and also aids the inflammation.
 - (5) To take a suitable cathartic daily.
- Saline cathartics are best for these cases.

Sometimes, but not always, this treatment is effective in relieving the congestion, and the tissues subside to normal. If, however, there is no relief after two or three days, I believe it only adds to the complications to wait longer, and would advise the removal of the tooth under a general anaesthetic, but only after consulting the patient's family physician. These operations sometimes cause a great deal of trouble, and the patient should be warned not to expect immediate relief.

There is often a difference of opinion as to the proper uses of heat and cold. Hot towels should be used when there is a congestion formed from infection, and ice packs used to control trauma.—*Frank S. Jarman, Toronto.*

REPLY FROM ONTARIO:

Treatment of this condition will necessarily depend on duration, amount and type of swelling; duration and amount of trismus, duration and severity of pain, temperature and general systemic condition of the patient.

Pain, swelling and trismus around a partially erupted lower third molar are, as a rule, due to distal septic crypts or, as they are more commonly known, pericoronal abscesses. In general, these acute conditions should be treated as a surgeon would treat an acute condition of the appendix. If the condition is seen within twenty-four hours after onset it is usually safe to operate. If a longer time has elapsed the risk is great. Most cases of osteomyelitis referred by dentists are due to operation during acute periods when the infection is spread widely into the surrounding bone and tissues. Especially is this true in the third molar region due to the close proximity of same to the deeper and softer tissues of the throat. This fact must be emphasized when the patient is suffering from throat or tonsillar inflammation.

If pain, swelling and trismus are of long duration and the swelling is hard, it is recommended that the patient be hospitalized. Moist heat should be applied to the area until it has softened, at which time it is usually safe to incise and drain the area. This is done from the inside of the mouth preferably, because of resultant facial deformity otherwise.

If the swelling is soft and appears well above the border of the jaw and if the submaxillary gland does not appear to be swollen or painful, moist heat applied to the outside along with ventilation of the socket by means of a suitable medicament is advised. In this regard the author has found mallophene two per cent to be most efficient. The patient should be immediately acquainted of the seriousness of this condition and the probable prognosis and advised to look after his elimination and force fluids.

When swelling, trismus and pain have returned to normal, it is suggested that a clear Roentgen ray be made of the tooth to be removed along with the surrounding bone structure as the first pre-operative essential. A general anaesthetic is preferable but if contraindicated, pre-medication is advised previous to local anaesthetic.

Post-operative conditions such as pain, hemorrhage, infection, swelling, trismus, discolouration, paresthesia, delayed repair are all important considerations and should be carefully noted and treated along recognized methods of procedure.—*George A. Morgan, Toronto.*

REPLY FROM SASKATCHEWAN:

As you know, there are many treatments suggested and probably you all have your own treatment, which may differ from mine, but which in your hands may prove quite satisfactory. I feel that this infection involving, as it does, the operculum covering these teeth, should be treated before their extraction or surgi-

cal interference. Most of these cases which we see have been infected for long periods of time, which is known as a low grade chronic infection. At various intervals they become more acutely infected and we refer to this stage as an acute exacerbation of the chronic condition already present. I feel that in our treatment of this condition it is impossible to stamp out all the bacteria but we should try to reduce the number as far as possible before operating. In other words, I like to have these conditions comfortable and in as good a condition as possible. My treatment presupposes that most, if not all, of these regions harbour Vincent's organisms and on this basis it is best to treat them with hydrogen peroxide, followed by an antiseptic tincture of metaphen (Abbott). Pain is controlled by hot saline mouth irrigations, heat applied by a special electric bulb for the purpose. This treatment usually gives rapid relief. Occasionally the extraction of the opposing third molar is of value in reducing the infection.

Years ago we used to excise these operculae rather generously instead of extracting the tooth. I found that in only a few cases the tooth would complete its eruption. In a great majority of cases the gum tissue grew back, resulting in a recurrence of the original condition, which was eliminated only by the extraction of the tooth, and at the present time, except in a very few, well-selected cases, extraction is the method I use.

In cases where the tooth is extracted while the infection is more or less acute, a reaction is prone to follow resulting in considerable swelling and temperature running from 102 to 105, necessitating hospital care. The number of cases of

this type, while not great, make it advisable, I feel, to delay extraction until a more favourable time.—*W. W. Irwin, Moose Jaw.*

REPLY FROM BRITISH COLUMBIA:

First control the infection by daily applying under the overlying flap a warm saturate solution of mallophene. After the acute symptoms have subsided the tooth may be removed, if indicated.—*Milton Jones, Provincial Mental Hospital, Essondale.*

REPLY FROM MANITOBA:

The treatment indicated is palliative followed by surgery when necessary.

This condition is caused by a pocket, distal to the crown of the tooth, and hidden by the overlying gum flap. Infection in the pocket causes the gum flap to be drawn tightly across the occlusal surface of the crown, preventing drainage. The resulting pressure from confined pus and invading infection frequently produces considerable pain and swelling.

Palliative treatment is carried out by introducing an antiseptic under the gum flap (tincture of metaphen or camphophenique). A small wick made from twisted cotton saturated with the antiseptic is placed under the flap and changed daily. In severe cases hot, moist epsom salts compresses are applied to the face.

This treatment will eliminate the infection and pain in a few days and will make it safe to remove the tooth.—*Douglas Brown, Winnipeg.*

"The greatest sanitary reform in the world lies in the task of revolutionizing the unsanitary and infectious condition of the mouth."—Dr. D. D. Smith.

The Forum

• INTEREST CASE OF DENTURE IRRITATION

PATIENT, female, approximately 50 years old. Full plastic denture inserted last November. Soon after the denture was inserted the patient began to experience an uncomfortable feeling in her mouth. This was expressed by a feeling of fulness and heat, which the patient, who is a business woman in a responsible position, found unbearable by late afternoon. It was interfering with her work.

The surface of the mucosa over most of the hard palate had a white, dead appearance from which patches occasionally rubbed off. There was an entire absence of the usual signs of redness and inflammation generally seen in cases of denture irritation.

This type of irritation is frequently ascribed to pressure on the palatal nerves in the dental literature. The rationale of this seems very questionable, when one considers the physical facts of retention and the protection usually afforded the nerves by the soft tissues of the palate. However, relief of all the area over the foramina and the course of the nerves was first tried. This did not help in the least.

While the appearance of the mouth did not resemble that resulting from the elimination of irritating drugs through the oral mucosa, a careful check-up was made to see if any drugs of this type were used. The result was negative.

The patient had previously worn a horse-shoe vulcanite partial for a considerable time without irritation. The possibility of an idiosyncrasy to the denture material was considered, but skin

tests were not made as the absence of irritation under the buccal flanges seemed to make this unlikely. It was decided that in spite of the history of the vulcanite denture, which after all only covered part of the palate, the most likely cause was the poor conduction quality of the denture material. The hard palate portion was cut out and replaced by cast gold. When this reconstructed denture was inserted the patient made a rapid recovery and the mucosa was soon normal in appearance.

One interesting feature was brought out in questioning the patient. She has always had a very sensitive skin and cannot wear any material which is in the least degree irritating.—*J. Stanley Bagnall, Halifax, N.S.*

• EXPERIENCES WITH ELCAST ELECTRICAL CENTRIFUGAL PORCELAIN CAST

by THEO. ARENDT, D.D.S.,
Markkleeberg—Leipzig, Germany

IN THE introduction to the article in the German Dental Weekly, "Deutsche Zahnärztliche Wochenschrift," the author quotes as follows:

"For the substitution of lost teeth, no other material is better suited than porcelain. Porcelain delivers all that is asked of such a substitute in aesthetic, hygiene, chemical and also technical ways. In obtaining the desired and exact form in porcelain work, difficulties are encountered. Also the combination of porcelain with metal is not altogether simple. Ceramics is by no means commonly used by the practising dentist. The reason for this lies mostly in the lack of simple and dependable methods, with the result that today, we do not have a simple method



Dental Health display in the window of the T. Eaton Co., during Dental Health Week in Toronto.

by which we can produce a well fitting porcelain filling; and even by the newest baking-methods, three or four bakings are required, without having any guarantee of final results."

Here, in a few words, the value of porcelain work in dentistry is established,—together with the difficulties encountered. The natural consequence of this fact is, that work in porcelain is still more expensive than that done in gold. And as long as the patient has to pay more for a porcelain filling than for a similar gold filling, ceramics will remain a field, less practised. A simple, dependable method, which will give the practitioner perfect results and at a cost suffering humanity can afford, so far has not been known.

A year ago, in a course given by Dr. Fritzsche, I became acquainted with this new procedure, and have since then done large amounts of porcelain work, both in my own practice and in the making of samples. When I speak of my experiences

with "Elcast," it is with grateful recognition of the inventor and with a feeling of being of service to my colleagues. The procedure of cast porcelain has been fully described in articles, previously mentioned. Porcelain fillings at gingival and interproximal spaces are well known, and speak for themselves. I shall confine myself to practical cases, where the superiority of the "Elcast" is most evident, in inlays, jacket crowns and bridgework.

The porcelain filling, made by the Elcast, is as perfect as a cast gold inlay. The margins are so exact that the cement line is perfect. The buildup of the contours is simple, and the reproduction perfect. Smaller and medium sized fillings are polished in position; the larger ones, glazed.—*Excerpt from Indian Dental Journal.*

Dr. Herbert A. McKim, of Glendale, California, brother-in-law of the author, states that Dr. Arendt expects to make his home in California within a few months and plans to introduce his methods in the United States and Canada.

• AND WE THINK WE ARE
GROWING OLD

BETWEEN the ages of 70 and 83
Commodore Vanderbilt added about
100 millions to his fortune.

Kant at 74 wrote his *Anthropology*,
Metaphysics of Ethics and *Strife of the*
Faculties.

Tintoretto at 74 painted the vast
Paradise, a canvas 74 by 80 feet.

Lamarck at 78 completed his great
zoological work, *The Natural History of*
the Invertebrates.

Verdi at 74 produced his masterpiece,
Otello; at 80, *Falstaff*, and at 85 the
famous *Ave Maria*, *Stabat Mater* and
Te Deum.

Oliver Wendell Holmes at 79 wrote
Over the Teacups.

Cato at 80 began the study of Greek.
Goethe at 80 completed *Faust*.

Tennyson at 83 wrote *Crossing the*
Bar.

Titian at 98 painted his historic picture
of the *Battle of Lepanto*.—*Religious Tele-*
scope.—*Nutrition and Dental Health*.



"Oh, Dr. Clink—look what happened to that filling you put in last week."

Reproduced by courtesy of NEA Service Inc.



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

NOVA SCOTIA



A. W. Faulkner, Halifax

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgcombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

The Ideal Canadian Dentist

by F. C. HARWOOD, Moose Jaw

(Associate Editor for Saskatchewan)

Much has been written concerning the absolute necessity of having a strong national organization in Canada to bind the individual dentists and the various organized dental groups into one complete whole, in order to speak with authority for Canadian dentistry in national and international affairs. We are in hearty accord with all which has been expressed thus far.

Since a chain is only as strong as its weakest link, so in the last analysis, the various groups of organized dentistry in Canada will be just as strong as the individual members make them, whether it be in the numerous local societies, the larger or provincial groups or the Canadian Dental Association. Let us therefore consider the type of individual we would choose to form the membership of these organizations so that they may represent worthily the highest professional standards and continue to elevate the status of dentistry.

Everything in life is valued, by comparison, with something else, which

becomes our standard of value, or our ideal in the realm of the spirit. The standard or ideal varies of course, with the individual! Let us see if we cannot choose an ideal on which most of us can agree, and with which each dentist can compare himself.

What personal qualities would we have our ideal dentist possess, and what relation would he bear to his patients and to his community?

Licensing bodies everywhere require each candidate for registration to present a certificate of good, moral character. We would go further and say that our ideal dentist should not only be a person of strict integrity and high moral character, but he should have a degree of culture and refinement which would give him entrée into the type of society where these qualities would be appreciated. He should, above all, be actuated by high ideals.

Theodore Roosevelt once said "The nation never stood in greater need than now, of having among its leaders men of lofty ideals which they try to live up to. We need men with these ideals in public life, and we need them just as much in business." We are satisfied of the truth of this statement in his day, and how much more are high ideals needed by professional men in this age! It is essential that our ideal dentist should be a student during his entire professional life. He should, therefore, subscribe to and carefully read the best dental magazines in order to keep himself constantly informed of the advances in dentistry. He should attend his local society meetings, and the available dental conventions, and take post-graduate study as frequently as possible. By so doing he can learn at first hand the technique as used by his various confrères, and can receive the inspiration which comes from personal contact with the specialists and research workers, thus broadening his knowledge and outlook. He should, however, learn to rely upon his own good judgment and, while prepared to consider improvements in his technique in the light of newer suggestions, he should refrain from going to the other extreme and adopting every new idea in its entirety, at the expense of all his tried and proven methods. It is generally conceded that only a few of the complicated techniques as developed by specialists can be completely adopted by the general practitioner. In his reading, however, and in the papers and clinics presented at the society meetings, the conventions and post-graduate courses, he is certain, if alert, to add to his scientific knowledge and to see wherein he can improve his technical methods. It will be of inestimable value if he can join a study group in his local society or elsewhere. Happy is the man who can make his vocation his hobby, and if the dentist can put into his profession, the enthusiasm, thought and concentrated effort which he puts into his hobbies, he will reach formerly undreamed of heights. We are not suggesting that his profession should be his only hobby, for even a machine needs a rest; but most of us have time and inclination for more than one hobby, however important our duties may be. Our ideal dentist should, in short, be continually striving to increase his professional knowledge in every possible manner. If, as a result, he is assured that he is keeping up to date in his theory and practice, he will

have the satisfaction of knowing that he is giving his patients the benefit of the best that is available to the profession at the time.

What is the ideal relationship which should exist between the dentist and his patients? We have stated that he should be a man of strict integrity. As a result he will put the patient's best interests first and at all times. The ancient "Golden Rule" as taught by the greatest Teacher who ever lived is certainly applicable, and if the dentist considers what advice he would like given himself if he were the patient, he will never go far astray. The slogan of one of the "Service" Clubs, "He profits most who serves best," is profoundly true in more than one sense. If the best interests of the patient are placed first, good judgment and care are used in the examination and diagnosis, and the highest service of which he is capable is rendered, the dentist will profit most in professional reputation, in personal satisfaction, and in the long run, in financial returns as well. We are not suggesting that the ideal dentist will not be careful of the business side of his practice. On the contrary, we readily admit that it is necessary if he is to continue to give service, but we are stating that there is one best way to attain to the highest professional and financial success.

May we be pardoned if we digress in order to pass on to the reader a conception of the duty of the dentist to his patient which a group of us received many years ago from the late Dr. George Wilson of Cleveland? He stated that when a patient enters your chair wanting a tooth filled or extracted, you have not done your whole duty to that patient if you simply do what you are requested to do, and discharge the patient. You may never see the patient again, but while he is in your chair you are his dental adviser, and you have not discharged your obligation as such unless you look at his mouth in its entirety, and in its relation to his health. If teeth or the supporting tissues require attention in order to eliminate probable sources of systemic infection, or the masticating efficiency is not high enough to properly perform the first process of digestion and maintain health, then you should advise the patient as to what is needed. Whether or not he accepts your advice is his business, but you owe it to him to give him the benefit of your specialized knowledge and professional advice. The writer considers it a splendid conception of one's duty and privilege, and worthy of the ideal dentist.

What should be the attitude of the ideal dentist in his relationship to his community, whether large or small? In the first place we consider that his attitude towards his fellow practitioners should be of paramount importance. If he is in a large city it is not difficult to support a healthy local dental society, but he should be active in it. In the smaller centres he should be willing to work all the harder to make a success of the local society, if one exists. If there is no local society and half a dozen or more dentists in the vicinity can be reached, he should consider it a privilege to help organize and work in such a society. He realizes that the local dental society does several things for the dentists in that community. It enables

them to meet and discuss mutual problems, to learn how others handle them and to have the benefit of an exchange of ideas. Incidentally, the ideal dentist who gets new ideas or improved techniques from his reading or his post-graduate studies, will be glad to pass them on to his fellow dentists in the local society. In addition to the mutual improvement of its members, our ideal dentist will appreciate that the local society can advance the cause of mutual understanding and good will. He will recognize that there has been a tendency in some communities to look upon the other dentists as "opposition" and perhaps to be rather critical of them rather than to think of them as confrères each endeavouring to do his part. Our ideal dentist will appreciate the fact that when he knows the other fellow more intimately, it is wonderful how many unsuspected good qualities he finds, and that what he previously disliked in him now assumes no importance. He will also know that this is eminently true of his confrères, as active members of a live, local dental society can testify.

The profession of medicine places stress on professional ethics, and particularly on guarding the reputation of the other members, and therefore of the profession. Our ideal dentist will be careful to refrain from criticism of the work of other dentists which comes to his notice. He will be as careful of the reputation of his fellow-workers as he would like them to be of his reputation, and will pass over mistakes with consideration and charity. He will realize that he cannot know the conditions under which the work was done or the subsequent conditions surrounding it, so that criticism might be unfair as well as decidedly unprofessional. Even where the patient's best interests require the work to be done over he will still guard the good name of his confrère, for his sake and that of the profession; and for the same reasons he will not withhold praise of work where praise is justified. He will do all in his power to assist in eradicating undesirable conditions like weeds from a garden, so that the highest ideals of the profession may be attained.

The ideal dentist will also feel that he has obligations to his community. He received special training, for which most dentists may say they paid in full. Since the universities cannot possibly charge, or the students pay the whole cost of maintaining the institutions, he will realize that the balance of cost, above the fees collected, must come from the tax payers. As he is indebted to society for part of his education and it grants him certain legal privileges denied to others, even if it is primarily to protect itself from incompetents, he belongs to a privileged class. He will also realize that no privilege can be enjoyed without the acceptance of the accompanying responsibility, so that, within certain limits, he should be prepared to render gratuitous service to those in need and worthy of that service. He will appreciate that this is an unpopular topic at present and a problem difficult of solution, but one which can be dealt with by a national organization in a national way, without relieving him of his personal responsibility.

In addition to discharging his professional obligations to his community,

our ideal dentist will wish to be a good citizen. Indeed, from his education and training he will be prepared to be one of the leaders in his community, and will accept such duties as his time permits and which the citizens feel he has ability to properly perform. Incidentally he will be proud of the already large number of the dentists of Canada who are discharging their obligations as good citizens. He would probably agree with those of us who contend that there should be added to the present dental curriculum lectures and practice in public speaking, and at least the fundamentals of economics. If that were done one would expect the dentists of the future to more efficiently manage their own financial affairs; and to be enabled to make a still greater contribution of service to their communities. One would certainly agree that when a dentist is honoured by his community the profession is itself honoured and its status elevated in public esteem.

Our ideal dentist, being a man of vision as well as ideals, will occasionally indulge in some reflection and self analysis. He will realize that in common with the rest of mankind, he has at times, notably when making New Year's resolutions, fervently resolved to improve himself in some particular. He will appreciate that this is a healthy sign and that the ultimate has not yet been reached in his life, that it is what may be called Divine dissatisfaction with his present status, and the certainty that he has not yet attained to his highest, potential capabilities, both personal and professional. He will know that the one who advised mankind to "Hitch your wagon to a star" was aware he would never reach the "star," but that he would reach higher than if he had aimed at a lower mark. He will also feel that if the ideal for which he strives can be completely realized he has not set his ideal high enough, and that the moment it is attained it ceases to be an ideal. Our ideal dentist will not feel that we have set too high an objective for every dentist in Canada to strive for, although others may think so. Let us admit that it may be true, since we are dealing with human nature, and that we are simply being impractical, idealistic dreamers, but would the reader be willing to accept a lower ideal for Canadian dentistry? Is it not true that if this "Divine dissatisfaction" can be awakened in the hearts of more of the members of the profession, and they earnestly strive to realize their highest ideals, that the average level of the profession will be raised accordingly. Will it not be true also, that the various organized dental groups, including the Canadian Dental Association, will be stronger and more influential because the status of the individual member has advanced? We hope it may.

Believe me when I tell you that thrift of time will repay you in after life with a usury of profit beyond your most sanguine dreams, and that the waste of it will make you dwindle, alike in intellectual and in moral stature, beyond your darkest reckonings.—William E. Gladstone.

CORRESPONDENCE

To the Editor of the Jour. of the C.D.A.

This letter is written to express my approval of your various editorials in the journal of the Canadian Dental Association, beginning with February and March, 1937, on the subject of "Publicizing Dentistry." I particularly wish to express approval of your editorial in the issue of January, 1938.

Without going into details, the writer has had some correspondence on this subject during the past four years with the Toronto Board. I have maintained for some 18 years that we, as a profession, have been remiss in educating the public to an appreciation of what proper dental care can do for the public at large. Dentistry never receives a press notice, except during a convention; when some new gadget is introduced, or probably when a patient swallows a piece of removable bridge work. The writer established the local public school dental service in the city of Windsor 19 years ago. At that time I approached the local newspaper on the question of publishing articles on Oral Health, stating that they would be written by the leading men of the profession, and was told that they would be

accepted at regular space rates; yet the newspapers willingly pay a considerable sum annually for syndicated articles which are not nearly as important to the public at large. I frankly feel that dentistry has itself to blame for this situation. Twenty years later we have made but little progress towards obtaining desired publicity.

I do not wish to bore you, although there are many other angles come to my mind. I do wish to say, however, that I believe your plea for increased fees should not have to be made at all. Assessment should take care of this. Several years ago I suggested to Toronto that our annual licentiate fee should be doubled and eventually raised to at least \$25.00. This would provide funds which would help the profession to pay for its publicity through press and radio; thereby we might hope to educate the press to an appreciation of our work to the point where they would at least accept articles on Oral Health *without charging* for their publication.

R. G. McMILLAN,
Windsor, Ontario.

March 8, 1938.

Toronto, March 17, 1938.

To the Editor of the Jour. of the C.D.A.:

I read the March Journal. I note your items on dental service "extended to those who need it" embracing many countries, and by service clubs in town and city.

I note people "do" seven Calgary dentists before rated bad credit.

A patient came to see me recently, with upper denture causing tissue folds like epulis. I trimmed the denture, x-rayed her mouth and found a small root and possibly a cyst. I ask for money; she says, "I have no money."

I could obtain a report from a credit rating company, but I have no way of knowing if the report is worth what it costs me. I could telephone her previous dentist, but I hesitate about doing that. Shall I be indifferent, or take a chance? She needs the service, I need the patient.

How I wish I were in an office with ten other dentists, where our credit man could look after all payments, and credit ratings. I think if those seven Calgary dentists were all in one office with one pay desk, these dead-beats would never be able to take advantage of them. In

addition every dentist would cut his overhead and increase his net income.

The practice of dentistry is disappointing to many of us because of money and collection problems plus the uncertainty of some of our operations. When one considers the conditions under which many of us practise it is small wonder that we have a "hesitant look," "a voice tremor," "a nervousness of the hands" or "a lack of methodical coherence" as mentioned in Doctor McBride's article on the "Handling of Children" on page 155 of the March Journal.

Some of us will welcome the day of socialized—or operative—or planned or—? dentistry which will take some of the worry out of our overhead and pay a plain but regular net salary. Of course, some are not interested at all in the progress or deterioration of themselves or the profession, but some day they may wake up enough to know that we should have had a plan.

Co-operation of some kind cannot come too soon or too completely.

Yours truly,
HOPING.

NEWS FROM THE PROVINCES

NOVA SCOTIA:

Oral Health Campaign

Friday night, April 1, marked the end of the first stage of the Nova Scotia Oral Health Campaign started last February, under the direction of Dr. Harry S. Thomson, field secretary of the Canadian Dental Hygiene Council, in conjunction with the Nova Scotia Department of Public Health and the Nova Scotia Dental Association, the financial arrangement between these three bodies having made the project possible. A dinner meeting with Dr. Hennigar, (chairman of the provincial oral health committee) presiding, was tendered the various executives responsible for the successful outcome of the movement. Notably present were Miss M. E. MacKenzie, Supt. of Nursing Services, Dr. P. S. Campbell, Deputy Minister of Public Health and Dr. Thomson. Dr. Davis, Minister of Public Health, sent his regrets, stating that owing to pressure of business at the House of Assembly, he was unable to be present.

After dining, the meeting was thrown open for opinions regarding the reaction to the effort. Dr. Hennigar gave a résumé of the activities of his committee. The work involved considerable time and labour, but was cheerfully carried on by all concerned and the result was most gratifying. This was further confirmed by letters received from dentists in charge of the districts visited. Each expressed his satisfaction with the manner in which the campaign was conducted and the goal attained.

Dr. Harry S. Thomson was the next speaker. He stated that his reception in each centre was most cordial. He found the people ready to listen, eager to learn and evidence of teamwork everywhere. He complimented the Oral Health Committee upon its efficiency and found the Department of Public Health most helpful, amenable to any suggestions and eager to do more than its share to bring the importance of Oral Health before the public. The Department of Education also came in for its share of praise. Teachers, nurses, service clubs, women's organizations, labour unions, all lent a hand and helped to make, as he styled it, one of the most successful campaigns he had ever conducted.

Miss MacKenzie gave it as her opinion that the public health nurses, of which she was the

head, had a much more definite idea as to the requirements for dental service.

Dr. Campbell opened his remarks by saying "it was a pleasure to work with you. I never saw a movement of this sort conducted with so little show of the selfish element. Nobody seemed to have an axe to grind. Action and results for the common good were the prime objects. My department has an idea of the dental needs of the public that it never had before." He sincerely hoped that the second stage of the Oral Health idea would be carried right on and his department would aid in every way possible, as oral health and general health go hand in hand, one cannot function without the other. If the Oral Health idea and the means for obtaining it can be fixed in the public mind, one of the barriers to the betterment of general systemic conditions is surmounted.

Dean Woodbury, Dr. Murray Logan, Dr. Eaton, Dr. Oxner then followed, all of whom expressed their hearty accord with the movement, and agreeing that the advantage attained from the organization and experience thus far gained, must not be allowed to wane.

Opinions were voiced as to the best means of carrying-on. The second stage would be without the able personal guidance of Dr. Thomson, but the education of the people as to the maintenance of oral health must be continually furthered. They must be shown how the needs for such are right with them all the time, how the vitamins, so necessary for growth and nutrition, are contained in our natural foods, how a diet built around such commonplace foods as milk, eggs, butter, cheese, meats, fish, vegetables, fruits, with the help of cod-liver oil in the winter, and sunshine in the summer, will furnish, when properly balanced, all the necessary elements for the physical well-being of the adult as well as the growing child, at the same time increasing the resistance to tooth decay, as these foods also contain the calcium so vital in their composition.

Canadian dentistry is most fortunate in having a body such as the Canadian Dental Hygiene Council organized for the purpose of spreading the gospel of mouth-health and the C.D.H.C. is equally fortunate in having a field secretary, i.e. Dr. Thomson, who has the

rare gift of being able to convey this message to the people.

The first Oral Health campaign in Nova Scotia has been a success from more than one viewpoint. On account of the unity of purpose the members of the dental profession have been brought into closer contact. There is a better understanding as to dental requirements of the public, by the Department of Health, as well as the educational authorities regarding school needs. The public has been taught that mouth-health is maintained by diet, oral cleanliness and regular dental inspection.

The organization, so far created by the work, must be kept moving and dental health information spread to every part of the province. Dental service must be made available to all districts, no matter how remote. This of course will take time, but the effort exerted will be well worth while.

WM. H. H. BECKWITH, D.D.S.,
President, N.S. Dental Board.

Note: With characteristic modesty, Dr. Beckwith has not included any mention of the very helpful co-operation he and the other members of the Provincial Dental Board afforded the committee in charge of the Oral Health Campaign. It gives me pleasure to correct this omission.—Associate Editor for Nova Scotia.

Halifax Dental Society

The regular monthly meeting of the Halifax Dental Society was held on April 7 with the President, Dr. Joseph Griffin, occupying the chair. A large number of the members attended. Dr. O. L. Croft was the speaker for the evening, his subject being his impressions of the mid-winter meeting of the Chicago Dental Society, with special emphasis on the Tuller-Fournet technique for the construction of lower dentures.

Dr. Lawrence Cameron's many friends read with regret of the recent loss, by fire, of his new residence in Lawrencetown. According to the presse report, the occupants had a narrow escape from being caught by the flames.

Dr. J. H. Rice and Dr. Alan Dunlop are fitting out offices in the Farquhar Building on Barrington St., being compelled to move as the result of the construction of a modern building on the old site.

New Glasgow Dentist Receives Payment For 1918 Account

Five dollars conscience money from a patient he treated 20 years ago was received by a New Glasgow dentist today in a letter signed "Mrs. A. C.," from Detroit.

The letter stated the money had been due for "quite a few years. You gave gas to me, having teeth extracted. The fee then was \$5, so I'm sending it to you as at that time I couldn't pay. It was 20 years ago, I believe, and it has never been off my mind."—*Toronto Telegram*.

BRITISH COLUMBIA:

Pacific Coast Dental Conference

One of the original objects of the Pacific Coast Dental Conference was the development of dentistry and of clinicians on the Pacific Coast to the extent that dentistry within the area of the Conference would be second to none. The success that has been accomplished has been definitely proved by the previous outstanding meetings, through its value to the members; and by the national and international reputation gained as a result of these Conferences. At the meeting of the American Dental Association last year, Pacific Coast Day was one of the outstanding features of the session.

The policy endorsed by the Executive Council and wholeheartedly supported by the members is, that the theme of this meeting be "A Pacific Coast Program." Many outstanding members have consented to present clinics and essays. All sections are enthusiastic in their support of this meeting. The intensified, selected program which is being prepared is not only of a highly specialized nature, but one from which every member will return to his practice well repaid for the time and expense incurred.

Dr. C. N. Johnson of Chicago, who is favourably known to practically every member of the profession in the world, is returning to his native land, as a guest of the Pacific Coast Conference, which, for the first time, is to be held in Canada.

Dr. F. M. Lott, Professor of Prosthetic Dentistry, University of Toronto, has his treatise on "Glass as a Denture Base" ready for presentation to the profession, and will be a guest clinician.

All Canadian dentists who are in good standing with their provincial organizations are welcome on the payment of the registration fee.

Time passes quickly. July will be here before you know it. Write for hotel reservations to Dr. V. D. Wescott, Medical-Dental Building, Vancouver.

ALBERTA:

Calgary Dental Society

At the March meeting of the Calgary Dental Society, Drs. Groff, Corben and Whitman presented very interesting clinics on their respective ways of making gold inlays by the indirect method.

Dr. Whitman demonstrated also an ingenious and efficient type of casting machine which he had made, and used very successfully. This is a centrifugal machine mounted on a chuck, which uses the laboratory lathe for power.

Health Department, City of Calgary

Annual Report of Dental Clinic, for the Year 1937

It will be noted that 14,107 pupils were inspected by the school dentist. All pupils in the public schools were examined once and most of the lower grades, from 1 to 5 inclusive, were examined twice. The number with perfect teeth at the time of inspection was 3,890 or 27.5%.

A total of 8,635 cases were cared for at the clinic throughout the year. 322 extractions of permanent teeth and 2,516 extractions of deciduous teeth were performed. A total of 8,282 fillings were inserted.

TREATMENTS:

Silver nitrate reduction	3,097
Opened pulp	385
Lanced abscess	4

EXTRACTIONS:

Permanent	322
Deciduous	2,516
Gas anaesthetic	3

FILLINGS:

Various	8,132
Copper amalgam bases	138
Copper cement bases	12 8,282

No treatment	314
Refused treatment	128

Prophylaxis	150
Miscellaneous operations	241
Total operations	15,080
Completed cases	6,915
TOTAL NUMBER OF TEETH TREATED:	
Permanent	6,386
Deciduous	5,669 12,055

New patients	1,435
New cases current year	4,828
Re-appointments	1,696
Emergency cases	665
Total number of patients treated	8,624

Number inspected	14,107
Number needing treatment	7,665
Need nothing at date of inspection	2,436
Number O.K.	3,890

DEFECTIVE TEETH:

Permanent	9,753
Deciduous	4,703

There were 28 talks given by dentists to Grade VIII students in schools.

GERALDINE OAKLEY, M.D.,

Asst. Medical Officer of Health.

The above report for the year 1937, of the school clinic dental activities in Calgary is of particular interest.

In view of the very high percentage of dental defects, usually 90% and over, noticed in many such reports, the percentage of 27.5 for perfect teeth at the time of inspection shown in this report is interesting and surprising.

SASKATCHEWAN:

Saskatchewan Dental Convention

The program for the Convention of the Saskatchewan Dental Society to be held in Regina May 29-31, indicates a profitable meeting in prospect. In addition to outstanding visiting clinicians, a large number of Saskatchewan men will give clinics on a wide range of subjects. The Convention opens with a reception at the Hotel Saskatchewan on Sunday evening, May 29, from 9 to 11, when an opportunity will be given to the dentists, their wives, and the assistants to renew old friendships and acquaintances and to form new ones. The wives of the dentists are especially invited to attend the Convention and a splendid program is being provided for their entertainment. The dental assistants will also hold their own sessions at the same time, and

a helpful and inspiring program has been arranged by their officers. Dentists and their wives from Manitoba and Alberta are cordially invited to share in this Convention.

Regina Dental Society

The March meeting of the Regina Dental Society took the form of a ladies' night, when the members and their wives enjoyed a dinner and dance at the Hotel Saskatchewan. The April meeting of the Society was largely a business meeting and the election of officers for the coming season was held. The new officers consist of Dr. W. H. Ross, President; Dr. W. Hancock, Vice-President, and Dr. H. J. Kennedy, Secretary-Treasurer.

Moose Jaw Dental Society

At the March meeting of the Moose Jaw Dental Society, Dr. Fraser Muirhead gave an interesting talk and clinic on some phases of children's dentistry, with special reference to inlays of a low cost metal and to space retainers in cases of early loss of deciduous teeth.

At the April meeting Dr. A. Duff Leask gave a talk and demonstration on the Dunlop method of dental periclasia treatment, using the Dunlop paste and Dunlop wax, with or without Dr. Dunlop's insufflation method.

It was interesting to the members of the Society to have two more Moose Jaw boys returning to their home city to practise, and entering actively into the work of the local Dental Society.

MANITOBA:

Winnipeg Dental Society

The Winnipeg Dental Society's annual free dinner was partaken of April 7 in the club rooms of the Medical Arts Building, by about 70 members without scruples and without diffidence since they considered they had already paid for it when they paid the annual dues.

The meeting was presided over by the president, Dr. C. M. Truman. Dr. Truman's official report of the season's accomplishments, in addition to a quite successful golf competition during the summer months of 1937, included much appreciated papers from Dr. Fulton Risdon, Associate Professor of Oral Surgery at the University of Toronto, Dean W. F. Lasby of the dental department of the

University of Minnesota, and last but not least from Dr. Ross Mitchell, obstetrician, of Winnipeg. The clinics presented by the members of the society at the March meeting, already reported in the last issue of the Journal, completed the roster for the winter season.

The newly elected officers for 1938-39 are president, Dr. W. A. Miller; vice-president, Dr. G. A. Buchanan; secretary-treasurer, Dr. David King. Dr. J. E. Abra and Dr. S. E. Greenberg complete the executive committee.

Dental Nurses and Assistants

The Winnipeg Dental Nurses and Assistants Association held its monthly dinner on March 7.

Short papers were presented by three of the members; Miss Inkster on "Reception of Patients," Miss Nye on "Office Housekeeping," Miss J. Crichton on "Use of the Telephone." The papers proved to be very instructive as well as helpful to all.

Miss L. C. Veal presented the organization with a lovely pair of hand-made pillow slips which we raffled. The proceeds of \$40.00 went to the treasury.

Our Dental Nurses and Assistants Annual Bridge was held March 14, at the Marlborough Hotel. Miss M. Gilbert convened the bridge, assisted by Miss T. Laveque and Miss E. Skinner. Our president, Mrs. D. Black, opened the bridge, which was attended by about 200 ladies. Prizes were donated by the Ash-Temple Co. Denco (Western) Ltd., and Dr. Donald Black. At the conclusion of the bridge prizes were distributed. The serving of refreshments brought the enjoyable evening to a close.

Joyce Golin, Secretary.

ONTARIO:

Health League

The Health League of Canada sponsored a dental health lecture in the Auditorium at Eaton's College Street, on April 4. Each year the Health League conducts a program of health education bringing prominent health lecturers from various centres on the continent. This is the first time dental health was included in the program. Dr. Ernest A. Branch from Raleigh, North Carolina, was the guest speaker and his subject was "Dentistry and Public Health." About 900 people were present to hear the address. The role dental care

occupies in the general health program would seem to be increasingly important and the Health League must be congratulated on this addition to the splendid work it is doing in the community.

Toronto Academy

The final meeting of the Toronto Academy for this season was held in Osler Hall on March 29. Dr. W. N. Miller was the essayist and his subject was, "Psychological Approach to Dental Office Problems." The presentation was quite a lengthy one and indicated methods of practice the speaker personally used in his office. Everyone present was given a copy of the address which made the material much more valuable as it gave recourse to further study.

At the conclusion of the meeting, President Dr. Harvey Reid introduced the new President, Dr. Harold Hoag, together with the personnel of the new council.

Hamilton Dental Society

The final meeting of the Hamilton Dental Society was held at Brant Inn on April 13. The new officers for 1938-39 are as follows:

Past-President—Dr. C. G. Stewart.
President—Dr. John Cummer.
Secretary—Dr. C. T. Moyle.
Treasurer—Dr. R. F. Flach.

Many of the boys of Class '23 will regret to hear of Dr. Lee Kilburn's recent misfortune in which he lost the end of his thumb from a virulent infection. We are glad to report Lee has recovered nicely from his illness which might have had very serious consequences. We hope too that the mishap will not handicap him very seriously in the conduct of his practice.

London and District Golf Tournament

The annual London and district golf tournament will be held in London on Thursday, June 2. All golfers are invited to attend.

Toronto Downtown Dental Society

The following officers have been elected for 1938-39:

Hon.-President—Dean A. D. A. Mason.
Past-President—H. A. Swales.

President—R. B. Gardiner.

President-Elect—Wendall Holmes.

Secretary—A. B. Babcock.

Treasurer—W. H. Walton-Ball.

Committee—H. Hobbs, E. Sinclair, F. A. Fraser, L. Schumacker, O. Elliott.

Toronto East Dental Society

The following officers have been elected for 1938-39:

Past-President—Lloyd Gross.

President—Helen J. Manchester.

Vice-President—Leon Hipwell.

Secretary—J. B. King.

Treasurer—W. W. Weir

Committee—E. Bancroft, F. Loucks, S. Hopkins.

Dental Clinic At Orillia

The Kiwanis Club donated \$600 to the establishment of the Municipal Dental Clinic which was accepted with gratitude by the Town Council at its March meeting. At the same meeting the Council approved the outlay of \$800 for the operating of the Clinic twice a week from April 1 to the end of the year.

Report of Discipline Committee

The Discipline Committee of the Royal College of Dental Surgeons of Ontario reports the following convictions during March and April for "practising the profession of dentistry or performing a dental operation while not being a member of the College."

ROBERT REID, Toronto, previously known as Victor White.

Convicted of a third offence on March 9th.

Fined \$500.00 and costs or six months.

GRAYDON TYRRELL, Toronto.

Convicted of a second offence on March 23rd.

Fined \$200.00 or two months.

GILL MACHER, Toronto.

Convicted of a third or subsequent offence on April 1st. Fined \$500.00 and costs or three months.

ANGUS ERSKINE, Toronto.

Convicted of a first offence on April 1st.

Fined \$100.00 or thirty days.

J. S. MOORBLY, Toronto.

Convicted of a first offence on April 4th.

Fined \$100.00 or thirty days.

Xi Psi Phi Fraternity

The Occasion—

ANNUAL ALUMNI BANQUET

FEATURES:—Very smart entertainment. Lucky number draw for large cash prize. Meeting of reorganized Chapter House Association.

TIME AND PLACE: Monday, May 16, at 7 p.m., Royal York Hotel, Toronto.

Lions Club Dental Clinic

The Lions Club of Niagara Falls has equipped a dental clinic at the general hospital. All work will be done by members of the local dental profession. The dental service is extended to students of the City of Niagara Falls and the Township of Stamford attending public and separate schools, whose parents or guardians are financially unable to secure this important attention for their children through the regular channels.

Decentralizing Hamilton Dental Clinics

Last fall in an effort to make the dental service of the Health Department more accessible to the people whom it was intended to serve, the Board of Health, under the chairmanship of Ald. (Dr.) T. E. White, brought about decentralizing, spreading the clinics about the city where they would be within easy reach of almost everyone.

This theory has proven sound and highly successful in practice. A report for the five months ending February 28 showed an increase in dental operations of 3,219 as compared with the same period of the previous year. In the same period new cases increased by 461 and completed cases by 272.

Kent County Dental Association

At the annual meeting of the above Association the following officers were elected:

President—Dr. Walter T. Jeffs, of Dresden.

Vice-President—Dr. George Cornell, of Chatham.

Secretary-Treasurer—Dr. J. G. McCubbin, of Chatham.

Councillors—Dr. White, of Bothwell; Dr. C. Gray, of Blenheim; Dr. Bradley, of Leamington.

Dr. Ralph Sommers, professor of the University of Michigan, was the guest speaker, taking as his subject, "Root Surgery." His

paper was illustrated with motion pictures in technicolor, and proved both informative and highly interesting.

Ontario Dental Nurses' and Assistants' Association

Miss Ruth Kester, B.S.(c.m.), was the guest speaker at the April meeting of the London Dental Nurses' and Assistants' Association, which was held in the office of Dr. H. D. Taylor, Dundas St.

Miss Kester spoke on her work with the Victorian Order of Nurses and was most interesting, explaining the work of this great organization.

There were sixteen members present, with Miss Florence Wilson presiding. The minutes of the last executive meeting, held recently in Toronto, were read, and plans for the coming convention in May were discussed.

Dr. Taylor was kind enough to join us in our social hour, and showed pictures he had taken with his moving picture machine which were enjoyed very much.

Mildred M. Granger,
Corresponding Sec'y.

QUEBEC:

Montreal Dental Club

The members of the Montreal Dental Club met on the evening of March 15, in the lecture room of the Pathology Building, McGill University, and listened to a very fine paper delivered by Dr. Theo. Waugh, Pathologist to the Royal Victoria Hospital. His subject was "Some Conditions of Oral Pathology." Dr. Waugh's lecture was followed by a series of slides of actual specimens projected upon the screen, all cleverly explained by the essayist. It was felt by the members that they could well attend more of these lectures on subjects which are apt to be neglected following graduation.

A symposium by five members of the Montreal Dental Club created a very interesting evening at the club rooms on March 28. After routine business was dispensed with, Dr. C. H. Barr, the president, relinquished the chair to Dr. Roger McMahon, who had arranged the program. The following members took it upon themselves to answer and discuss these questions.

Dr. Lorne McRae—Describe your method

of treatment when a pulp has become putrescent.

Dr. A. T. Donahue—What is the technique of bite-wing films and their value?

Dr. R. E. Dagg—Which denture base materials are at present best suited to work from the standpoints of beauty, strength, fidelity and permanence?

Dr. A. W. Mitchell—Should an infected tooth ever be extracted during the stage of acute inflammation and swelling?

Dr. R. E. McMahon—Should hot or cold applications be used in the treatment of traumatic and infectious swellings about the jaws?

Quebec Dental Clinic

A total of 7,449 adult and child patients were treated at Quebec's municipal dental clinics from January 1, 1937 to March 1 last.

•

Montreal Kiwanis Aids Dental Clinic

At a recent meeting of the Children's Dental Committee of the Montreal Council of Social Agencies it was announced that the Montreal Kiwanis Club had donated complete modern equipment to the clinic operating under the committee in the William Dawson School.

EMPIRE NEWS

GREAT BRITAIN:

Inquiry Into Conditions of Service, Training and Wages of Dental Mechanics

The British Dental Association, the Incorporated Dental Society and the Public Dental Service Association, have set up a Joint Committee under the chairmanship of Mr. R. G. Heegaard Warner, Chairman of the Council of the British Dental Association, to inquire into the conditions of service, training and wages of dental mechanics.

•

An Understaffed Profession

Young people are often warned not to enter certain professions because they are overcrowded. The prospects are not good, so it is satisfactory to hear of one that offers opportunities for the present and more opportunities for the future. The Dean of Guy's Hospital Dental School says that the dental profession in the United Kingdom is understaffed, and is the only branch of the medical profession which still provides unlimited scope for young people. At present, he added, there were only three qualified dental surgeons for every 10,000 of the population, and as the nation became more and more "tooth-conscious" the need for expansion of its dental services would increase. The prospect for the future was one of expansion, with a corresponding need for a larger personnel.

Dentistry is one of the subjects dealt with in the pamphlets on careers published by the

Ministry of Labour for the benefit of the pupils in secondary schools.

Newly qualified dentists have the choice of several methods of making a living. Probably 75 per cent obtain practical experience as assistant to an established practitioner in private practice, as this is the most satisfactory method of gaining adequate experience. A further advantage of spending the first few years in the profession as an assistant is that normally no outlay is required for the outfitting of a surgery or workshop. The salaries usually obtained on first appointments of this kind are about £250 a year.

For some public appointments under local authorities preference is given to those qualified in medicine and in dentistry. The minimum salary for a full-time public appointment is £400 a year. Some authorities may offer £450 or £500 a year initial salary. It is usual to invite applications from men and women for public appointments. The salaries offered are the same for women as for men.—
Condensed from The Manchester Guardian.

AUSTRALIA:

1938 Dental Essay Competition

The Dental Health Education Department of the Australian Dental Association, New South Wales Branch, is organizing again this year various dental essay competitions, chiefly among school children. The competitions are conducted as an integral part of the Department's work to spread the knowledge of dental health and the principles of prevention.

Particulars of the competition are as follows:

1. Dental Essay Competition, open to all High School pupils, of two grades:

(a) *Pre-Leaving Certificate Standard: Essay Title*—"The Importance of Dental Health in the World Today." First prize, £5. Five prizes of £1 each.

(b) *Pre-Intermediate Standard: Essay Title*—"The Way to Build and Keep Healthy

Mouths." First prize, £5. Five prizes, £1 each.

2. A School Dental Examination, open to all Primary School children, also of two grades:

(a) *Fourth Class Standard: First prize, £1. Eight prizes of 10s. each.*

(b) *Fifth and Sixth Class Standard: First prize, £1. Eight prizes of 10s. each.—D. Jour. of Aust.*

GENERAL NEWS

Dominion Dental Council

The Dominion Dental Council Meeting will be held in Vancouver on Friday and Saturday, July 1 and 2, 1938. The President is Dr. H. A. Croll, Souris, Manitoba, and the Secretary, A. J. Brett, D.D.S., Regina, Saskatchewan.

Leigh C. Fairbank to be First Brigadier-General of the Dental Corps, U. S. Army

Leigh C. Fairbank, D.D.S., was selected the first Brigadier-General of the Dental Corps of the U. S. Army under the new dental legislation by the President of the United States on February 15, 1938, and the nomination was confirmed by the Senate on March 4. The new Brigadier-General of the Dental Corps took the oath of office on March 11, this year.—*A. Jour. Ortho. and Oral Surgery*, April, 1938.

Progress Report on Dr. Trier's Questionnaire

A preliminary report based on 619 replies to the questionnaire sent to the membership of the First District Dental Society by the president's Advisory Committee on Public Dental Health, gives promise that the movement inaugurated by Doctor Trier on assuming the presidency of the Society will lead to a practical solution of the problem. About two-thirds of those replying answered "yes" to the question, "Would you be willing to accept additional dental practice at a fixed sum per hour?" Of those who responded, 23 per cent said they would be willing "to give full time to any dental project proposed at a fixed weekly salary" if it were supervised by organized dentistry. Approximately 66 per cent of those who responded are willing to accept patients at low fixed fees from the low income group

who, at the present time, are not receiving dental attention.

The questionnaire reveals for the first time specific information concerning the number of hours that dentists in New York City work per day and also shows the amount of idle time. According to the replies, it is estimated that the average dentist has eight "office hours" per day, out of which he is idle two hours and ten minutes. It has been pointed out that 3,500 children per week could be cared for by this small cross section of dentists in Manhattan and the Bronx during their present idle time.

COMPOSITE ANSWERS TO QUESTIONNAIRE

1. Total number of working hours per day (office hours).
4933 working hours for 619 dentists.
2. Average number of idle hours per day.
1342 idle hours for 619 dentists.
3. Would you be willing to accept additional dental practice at a fixed sum per hour?
396 said "yes"—214 said "no."
4. Would you be willing to give full time to any dental project proposed at a fixed weekly salary (to be supervised by organized dentistry)?
141 said "yes"—460 said "no."

The Public Dental Health Committee which was organized for the purpose of attempting to solve the problem of reducing dental disease through the provision of adequate dental care for the low income group marks an innovation in public health activity by a dental society. The First District Dental Society, which is sponsoring the investigation, is the largest local society in the world and represents the Manhattan and Bronx members of the American Dental Association. Consequently, its ultimate report and the results of the progress of the committee is being closely watched by government agencies as well as the dental

profession all over the United States.—*J. A. Salzmann in N. Y. J. Den., April, 1938.*

American Dental Association Plans S. F. Fair Exhibit

The extensive educational dental show in the Hall of Science at the 1939 Golden Gate International Exposition on San Francisco Bay under the direction and sponsorship of the American Dental Association, will attempt to impress dramatically upon the minds of millions of Fair visitors the importance of correct care of the teeth.

Realizing that the education of the public in health requirements is a serious responsibility, the dental association is making elaborate plans for the telling of its side of dental health. The general story of the teeth and how they affect health, and the history of dentistry will be the two main subjects of the exhibits.

One of the unusual displays will show, principally through the use of models of heads and jaws, the development of the teeth in the evolution of man. Another will portray the Eskimo, the South Sea Islander, the African native, and the American Indian before and after his introduction to the white man's diet, illustrating the surprising effect this change of diet has had upon their teeth.

One of the displays revealing the history of dentistry will depict the progress which has been made in the profession during the past 100 years. A section of this display will contrast the Baltimore College of Dental Surgery as it looked in 1840 with the modern dental school of 1939. Through the use of transparencies, the discovery of nitrous oxide by Wells in 1844, the discovery of ether by Morton in 1846, and the invention of vulcanite rubber by Goodyear in 1850 will be portrayed. The hand drill and foot engine of these early days will also be shown in comparison with modern dental equipment.

The evolution of the artificial tooth and the story of the use of various filling materials will likewise be covered. In contrast with early dental practice modern plastic surgery and orthodontia will be illustrated. A magic dental office, which by means of mirrors and concealed lighting changes the scene from an 1839 dental office to an office of 1939 as the spectator

looks on, will effectively denote the progress the profession has made during the past hundred years.

On the preventive and corrective side, a series of displays is planned to emphasize how early discovery and treatment of defects prevents serious decay. Murals and transparencies will be used to suggest how regular dental care improves the appearance and affects success, enables the mastication of food, improves health, prevents disease and reduces the expense of medical and dental treatment. Another transparency panel will show how the modern dentist eliminates pain in all dental operations.

Other transparencies will show the prevention of decay, prenatal care, infant and preschool care, the effect of calcium and phosphorus foods and the various vitamins on the teeth, and mouth hygiene. Large animated displays with flash translights will show teeth changing from good, to bad, to worse. The "Talking Tooth," a huge model of a molar which deteriorates in full view of the visitor, will tell its own tragic story. Still other displays will show the eruption of baby teeth, cancer of the mouth, syphilitic lesions of the mouth and other vital subjects.

Under the direction of Dr. Milton Silverman, the Hall of Science, one of the huge exhibit palaces leading off the central court, promises to be an outstanding attraction at the \$50,000,-000 Pageant of the Pacific.

Life Insurance

In a survey made by the American Survey Bureau of Life Insurance buyers in the U.S.A. and Canada, it was found that the average insurance owned by teachers was \$2,858; by architects, \$7,791; by lawyers, \$7,926; by clergymen, \$3,068; by doctors, \$19,699, and by dentists, \$7,606.—*Financial Post.*

General Incidence of Rheumatic Diseases

Statistics again demonstrate that the rheumatic diseases represent one of the world's greatest social and economic problems. A recent Public Health Survey calculated the incidence of "chronic arthritis and rheumatic diseases" as 22.18 per 1,000 persons or 2.2

per cent of the population. The morbidity rate for tuberculosis of all forms, including suspected cases, was only 4.72 per 1,000, about one-fifth that of chronic rheumatism. Based on these figures, Kling calculated that about 2,700,000 of the 120,000,000 population in the United States are affected with chronic rheumatic diseases, of whom 230,000 are disabled. According to the Massachusetts survey (1933), 3,264,000 persons, or 3.2 per cent of the population of the United States, suffer from chronic rheumatism.—*Annals of Internal Medicine*, January, 1938.

Final Figures on Chicago Mid-Winter Meeting For 1938 Reveal Record Attendance

Over Five Thousand Dentists Registered in Total Reaching New High With More Than Ten Thousand Visitors.

More than ten thousand visitors were in attendance at the 1938 Midwinter Meeting of the Chicago Dental Society, according to the

final figures which have just been announced. This is the largest attendance that has ever been recorded in the history of the Midwinter Meeting, and analysis of the figures indicates that it was drawn from almost every state in the country, Canada, and several foreign countries. The following classification is of interest:

Physicians	176
Public Health Nurses	316
Dental Students	569
Lay Guests	616
Dental Assistants	615
Dental Hygienists	135
Dental Laboratory Technicians	32
Family of Members	1,607
Total Number of Visitors	4,066
Total Number of Dentists	5,190
Exhibitors' Representatives	1,245

Grand Total Registered Attendance10,501
Bul. Chi. D. Soc.

BIRTHS

Born to Dr. and Mrs. G. L. Prestien at Galt Hospital, on March 10, a daughter (Dorothy Jane).

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

John Spurgeon MacDougall, of Winnipeg, Manitoba, aged 53, died April 3, at his home, following a prolonged illness.

He was born in Russell, Ontario. He attended Toronto University and was graduated in dentistry. In 1910 he came west and took over the practice of Dr. J. A. Ross of Winnipeg.

He was a member of the Winnipeg Dental Society, the local Scottish Amateur Athletic Association, and several other athletic clubs, Meridian Lodge (A.F. and A.M.) and the Caledonians.

Dr. MacDougall is survived by his widow, father and mother, one sister and four brothers.

Francis F. W. Askey Ainsworth of St. John, New Brunswick, died on March 27 of lobar pneumonia. He received his dental degree in England before coming to St. John, thirty-five years ago.

Dr. Ainsworth is survived by his widow, three sons and two daughters.

Joseph Emile Boivin, of Montreal, Quebec, aged 58, died on March 28, from a heart attack. He was graduated from the Baltimore College of Dental Surgery. He was a keen follower of many branches of sport and at one time was a director of the National Lacrosse Club.

Dr. Boivin is survived by his widow, three children, and a sister.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

l'Orthodontie (suite)

par PAUL GEOFFRION, B.A., D.D.S., A.I.D.O. (R.A.)

Membre de l'Académie Internationale d'Orthodontie; Professeur Titulaire d'Orthodontie de l'Université de Montréal.

Passant maintenant à la 2ième période de développement d'une occlusion normale, c.a.d. à celle qui précède l'éruption des incisives et des premières molaires permanentes, nous verrons que si les rapports mesio-distaux des dents temporaires restent les mêmes que ceux de la 1ère période, il n'en sera pas ainsi des arcades qui devront non seulement s'allonger antérieurement, mais aussi s'élargir, se développer latéralement afin de provoquer entre les incisives des diastèmes nécessaires à l'éruption normale des incisives permanentes supérieures qui ont une différence en plus de 7.6 m.m. et des incisives inférieures qui ont aussi une différence en plus de 6 m.m.

Ces diastèmes doivent exister vers la

4ième ou 5ième année, Avant d'étudier la 3ième période de développement d'une occlusion normale; il est un phénomène sur lequel nous voulons particulièrement attirer l'attention, phénomène qui se produit toujours au moment de l'éruption des dents de six ans et qui consiste en ce que la cuspide mésio-buccale de la première molaire supérieure, contrairement à toutes les lois de l'occlusion, articule directement sur le bord mésio-buccal de la première molaire inférieure. (Figure 3).

Cette occlusion qui à première vue peut paraître anormale et laisser supposer une disto-occlusion de la mâchoire inférieure serait due, d'après Izard, au fait "qu'à l'éruption des premières

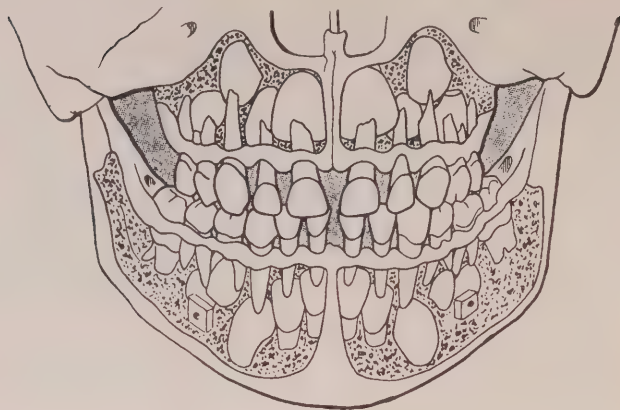


Figure 2.

Allongement de l'arc dentaire dans la première période: production de diastèmes mormaux dans la région incisive canine (Crane du Museum No. 8483) D'après Izard—Orthodontie Masson & Cie, Editeurs.

molaires permanentes, celles-ci trouvent en avant d'elles, les molaires temporaires dont les faces distales sont équidistales. Leurs faces mésiales se placent donc sur une même ligne verticale, de sorte que leurs cuspides mésio-vestibulaires se trouvent également équidistales." Cette occlusion des molaires de 6 ans persiste jusqu'à l'époque du remplacement des molaires temporaires par les prémolaires, c'est-à-dire jusqu'à l'époque de la 3^{ème} période que nous allons maintenant étudier.

Au moment de l'éruption des prémolaires, les premières molaires qui jusqu'alors mordaient bout à bout—figure 4 (a) se déplacent mésialement figure 4 (b).

Cette mésio-gression est plus importante à la mâchoire inférieure qu'à la mâchoire supérieure. La somme des molaires temporaires inférieures dépasse en effet, de plusieurs millimètres celles des supérieures; de plus les prémolaires inférieures sont moins larges que les supérieures. Il en résulte une différence de 4 millimètres environ au profit de la

dent de six ans inférieure.

Dans cette période de transition on peut dire qu'il n'y a pas d'occlusion molaire stable et ce n'est que lorsque les prémolaires sont en place seulement que les dents de six ans présentent ce qu'il est convenu d'appeler l'occlusion molaire

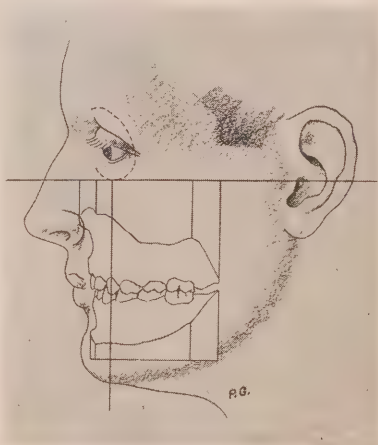


Figure 3.

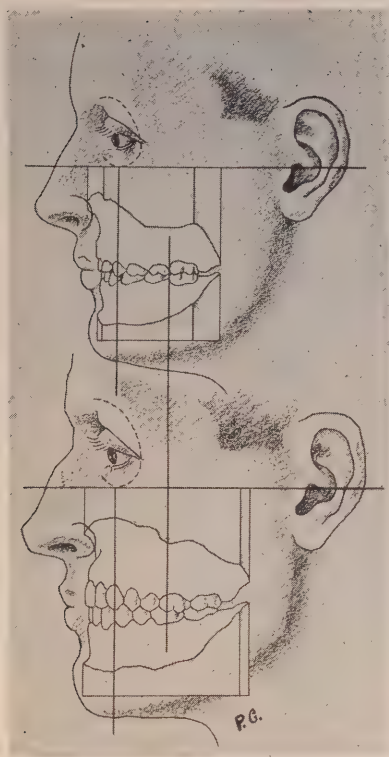


Figure 4.

normale, c'est-à-dire, pas avant la 11^{ème} ou 12^{ème} époque ou période de développement d'une occlusion idéale et qui sera pour ainsi dire l'occlusion définitive.

En se rapportant à la figure 5 qui représente une occlusion normale "idéale" permanente, on verra que chaque arcade dentaire décrit une courbe gracieuse et que les dents de ces arcades sont disposées de façon à présenter la plus grande harmonie, non seulement avec les dents de la même arcade, mais aussi avec celles de l'arcade plus petite que l'arcade supérieure, de sorte qu'au moment de l'occlusion, les surfaces labiales et buccales des dents de la mâchoire supérieure,

surplombent quelque peu celles des dents de la mâchoire inférieure.

Si nous étudions maintenant les surfaces d'occlusion sur un plan horizontal (Figure 6) nous verrons:—

- 1 Que L'incisive centrale supérieure plus large que l'incisive centrale inférieure, la dépasse nécessairement du côté distal recouvrant en plus la moitié environ de l'incisive latérale inférieure.
- 2 Que l'incisive latérale supérieure forme occlusion avec le reste de cette dent et le bord mésial de la canine inférieure.
- 3 (a) Que le bord mésial de la canine supérieure offre son bord incliné au bord distal de la canine inférieure.
(b) Que le bord distal de la canine supérieure est en rapport avec le bord mésial de la cuspside buccale de la première prémolaire inférieure.
- 4 (a) Que la pointe du cuspe buccal de la lère prémolaire supérieure fait son occlusion dans l'embrasure située entre la lère et 2^{ème} prémolaires inférieures.
(b) Que le cuspe lingual de cette même prémolaire fait son occlusion dans la fossette distale de la lère prémolaire inférieure.
- 5 (a) Que la pointe du cuspe buccal de la 2^{ème} prémolaire supérieure fait son

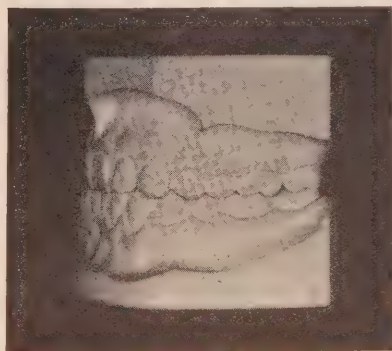


Figure 5.
Occlusion Normale Idéale; Vue latérale.

occlusion dans l'embrasure ou l'espace situé entre la 2^{ème} prémolaire inférieure et la 1^{ère} molaire.

(b) Que la pointe du cuspe buccal de la même prémolaire supérieure fait son occlusion dans la fossette distale de la 2^{ème} prémolaire inférieure.

6 (a) Que la pointe du cuspe mésio-buccal de la 1^{ère} molaire supérieure fait son occlusion dans le sillon buccal de la 1^{ère} molaire inférieure.

(b) Que la pointe du cuspe mésio-lingual fait son occlusion dans la fosse centrale de la 1^{ère} molaire inférieure.

(c) Que la pointe du cuspe disto-buccal de la 1^{ère} molaire supérieure fait son occlusion dans l'embrasure située entre la 1^{ère} et 2^{ème} molaires inférieures.

(d) Enfin que la pointe du cuspe de la 1^{ère} molaire supérieure fait son occlusion sur le sillon mésial de la 2^{ème} molaire inférieure.

Le même ordre continue avec les pointes buccales et linguales des cuspes de la 2^{ème} et 3^{ème} molaires supérieures. Passant maintenant aux changements qui surviennent dans la 5^{ème} période, disons pour résumer qu'ils consistent dans une usure des pointes des cuspes des dents qui, avec le temps, viennent mordre bout à bout.



Figure 6.

Occlusion des dents permanentes (d'après Friel). Les lignes pointillées représentent les dents du maxillaire supérieur.

Au début de ce chapitre, quand nous avons donné la définition de l'occlusion normale "idéale," nous avons écrit qu'elle consistait non seulement dans la relation normale des contacts des surfaces des cuspidés et des crêtes des dents quand les mâchoires sont fermées, mais aussi de leurs points de contact proximaux et de leur position axiale.

Par position axiale, il faut entendre: la position qu'occupe la dent dans le

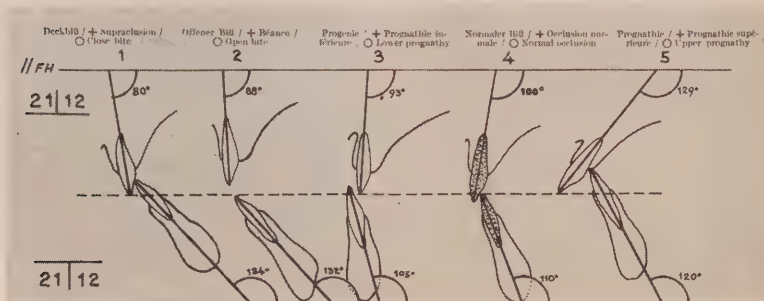


Figure 7.

Position des axes dentaires des incisives supérieures et inférieures dans la structure normale et anormale du maxillaire (d'après Cieszyński).

plan vertical.

Il n'existe pas de lois qui régissent la direction des axes dentaires et il y a autant d'axes dentaires qu'il y a de formes de crânes. Mais on peut dire que chez les "nôtres" et ce sont les seuls qui nous occupent, la position axiale des dents peut se résumer à ceci.

Dans une occlusion normale les incisives supérieures sont implantées perpendiculairement à la base de la mandibule, c'est-à-dire que la position de leurs axes par rapport au plan horizontal de Francfort est de 100° (figure 7 en 4).

Les incisives inférieures sont inclinées légèrement labialement à un angle de 110° (figure 7 en 4).

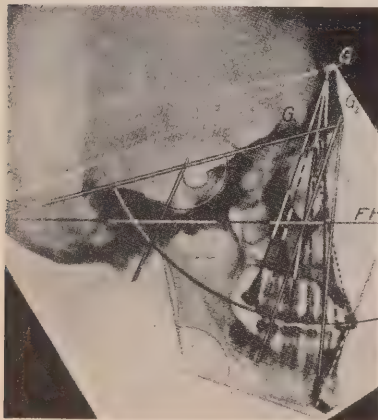


Figure 8.
(d'après Cieszynski).

Si nous étudions maintenant la figure (8) qui est une téléradiographie d'un hémicrâne avec les lignes de construction des cônes de la denture, nous verrons que les axes dentaires des prémolaires supérieures convergent vers la paroi interne du sinus frontal en G. Que celles des prémolaires et molaires inférieures vers la paroi externe dans la région glabellaire en G 2. Les axes dentaires des dents

antérieures supérieures forment le cône antérieur de la denture, dont le sommet est situé plutôt un peu plus profondément et plus en arrière, en G 3.

Tant qu'aux canines du maxillaire supérieur elles sont légèrement, très légèrement inclinées.



Figure 9.
Figure qui représente une mauvaise inclinaison axiale de toutes les dents supérieures. (La comparer avec la figure 8). Les lignes indiquent les déviations des axes dentaires.

On ne saurait attacher trop d'importance à l'inclinaison ou la position axiale normale des dents, car nous verrons lorsque nous étudierons la classification des anomalies, combien il est nécessaire de bien connaître ce phénomène chaque fois que l'on voudra faire un diagnostic. C'est au docteur Strang que revient le mérite d'avoir attiré l'attention du spécialiste en orthodontie sur l'importance de la position des axes dentaires dans l'occlusion ou la malocclusion. Avant lui personne n'y avait pensé et pour l'avoir oublié, des milliers d'anomalies ont été créées de toutes pièces. Maintenant que nous connaissons exactement la disposition des dents et leur engrenage parfait à l'état d'occlusion il est très important de nous inculquer que seule l'occlusion normale "idéale" doit nous servir de guide pour apprécier la position correcte

ou incorrecte d'une ou plusieurs dents.

La description que nous venons de donner est celle d'une occlusion "type," telle que nous la comprenons aujourd'hui. Il est douteux que dans nos traitements nous puissions toujours atteindre cette occlusion. Mais comme le type reconnaît certaines variations, il s'en suit qu'une occlusion qui diffère un peu de l'occlusion normale "type," c'est-à-dire, privée de quelques-unes des conditions que nous avons énumérées, pourra être et sera encore une occlusion normale. Parce que nous disons que dans l'occlusion normale "type" les dents doivent se toucher les unes les autres, cela ne veut pas dire que si nous avons entre deux incisives centrales une petite séparation (pourvu que celle-ci ne sera pas due à un frein anormal ou à l'absence de dents) nous n'avons pas une occlusion normale.

Parce que nous disons que dans une occlusion normale "type" les incisives centrales et latérales doivent surplomber les incisives inférieures d'environ un tiers, cela ne veut pas dire que si chez certains individus mordent bout à bout ou plus qu'un tiers, nous aurons une occlusion anormale, car à part la petite variante de suroccclusion, nous avons encore une occlusion normale.

Enfin parce que dans l'occlusion normale "type" nous devons avoir quatre incisives et qu'il y en a cinq alors que toutes les dents sont en position et répondent aux lois de l'occlusion normale, cela ne veut pas dire que cette occlusion est anormale (Figure 10-11).

Voilà pourquoi nous définirons l'occlusion fonctionnelle normale celle qui, par suite de l'évolution se sera le mieux adaptée à accomplir la fonction qui lui sera propre. Et cette occlusion qui se sera le mieux adaptée sera toujours celle qui se rapprochera le plus possible de l'occlusion normale "type" ou idéale que nous venons d'étudier. Il est entendu que nous ne pouvons prétendre atteindre

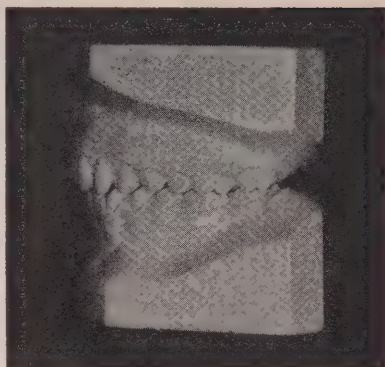


Figure 10.

Occlusion normale avec deux latérales.



Figure 11.

Vue occlusale de la figure 10.

toujours cette occlusion "type," mais nous nous en approcherons d'une façon doutant plus certaine que dans nos traitements, nous suivrons les règles de l'occlusion idéale, c'est-à-dire, ce bel ordre des dents, ensemble harmonieux et magistral.

(à suivre)

I

L'OCCLUSION.

{ c'est la relation des dents du maxillaire et de la mandibule lorsque les mâchoires sont fermées.

1°—L'occlusion des dents temporaires après leur éruption complète. (voir fig. 1).

2°—Les changements qui surviennent dans l'occlusion avant l'éruption des incisives permanentes et des lères molaires permanentes.

(a) Développement antérieur de l'arcade mandibulaire et maxillaire.

(b) Développement latéral des deux arcades dans la région des incisives, afin de créer les diastèmes nécessaires à l'éruption des $\frac{21}{12}$

qui ont une différence en plus de 6 m.m. et 7.6 m.m. (voir fig. 2).

(c) Mouvement mésial des lères mol. inf.

(d) Mouvement moins prononcé des lères molaires supérieures. (voir fig. 3).

3°—Changements qui surviennent après la perte des canines temporaires et des lères et 2ièmes molaires temporaires.

4°—Occlusion des dents permanentes chez le jeune adulte. (voir fig. 4).

5°—Changements qui s'opèrent dans l'occlusion par suite de l'usure.

(a) Dans la denture temporaire l'inclinaison axiale n'existe pas.

(b) Dans la denture permanente les $\frac{21}{12}$ sont implantées perpendiculairement à la base de la mandibule à un angle de 100°. (voir fig. 7).

(c) Les $\frac{21}{12}$ sont implantées à un angle de 110°. (voir fig. 7).

(d) Que les axes dentaires des $\frac{54}{45}$ convergent vers la paroi interne du sinus frontal. (fig. 8 en G).

(e) Que les axes dentaires des $\frac{654}{456}$ convergent vers la paroi externe dans la région glabellaire. (fig. 8 en G 2).

(f) Que les canines supérieures sont très légèrement inclinées.

6°—Inclinaison axiale des dents. "C'est la relation que garde dans le plan vertical la couronne d'une dent par rapport à sa racine.

II

L'OCCLUSION NORMALE TYPE: C'est la

relation normale non seulement des surfaces des cuspidés et des crêtes des dents quand les mâchoires sont fermées, mais aussi de leurs points de contact proximaux etc.

III

OCCLUSION FONCTIONNELLE NORMALE.

{ Toute occlusion variant un peu de l'occlusion TYPE, c'est-à-dire, pouvant manquer quelques-unes des caractéristiques de l'occlusion normale "idéale".

V-9—Séparation entre deux dents.

V-9—Surocclusion.

V-9—Cinq incisives au lieu de quatre. (voir fig. 10 et 11).

"L'état de relation des dents qui sera le plus efficace dans l'établissement et le maintien de l'organisation de l'être humain". (Leroy-Johnson).

"Celle qui par suite de l'évolution sera le mieux adaptée à accomplir la fonction qui lui est propre". (Geoffrion).

Revue des Revues

par GERARD DE MONTIGNY, B.A., D.D.S., M.S.D.

"Hypophyse et Troubles maxillo-dentaires", par Mm. E. Lebrun, R. Sudaka et M. Valois.

Le dysfonctionnement de la glande hypophysaire (hyper ou hypo engendre des malformations ou altérations de son contenu, la selle turcique.

Les auteurs étudient et classent ces différentes modifications, leur influence, leurs rapports sur les os constituant l'infrastructure du crâne. Le manque de développement de la selle turcique et des apophyses clinoides a pour conséquence initiale un arrêt du développement des os constituant l'articulation temporo-maxillaire (temporal, condyle du temporal, cavité glénoïde) morphologiquement anormaux ou en position anormale (anomalies post-lambdoidiennes).

Autant d'étiologies présomptives en faveur de certaines dysmorphoses cranio-dento-faciales. (La Revue Odontologique, livraison de mars 1938).

"L'importance de la psychologie dans le pédodontie", par Frank L. Lamons, D.D.S., Atlanta, Ga.

La science de la psychologie a une part très grande dans le maniement des enfants qui se présentent dans nos cabinets dentaires et trouve des applications pratiques à tout instant.

Le dentiste qui veut se rendre populaire chez les tout petits doit s'examiner d'abord et observer ses manières d'agir à leur égard; il lui est possible d'améliorer ses relations avec eux par l'étude de quelques facteurs psychologiques bien simples.

Les enfants ne peuvent être classés par classes ou par groupes; chacun d'entre

eux mérite une observation individuelle et ce n'est qu'à l'aide de cette attention particulière, appuyée sur le bon sens que le praticien parviendra à mâter les petits rebelles.

La coopération des parents est un atout qui ne peut être négligé; cette collaboration précieuse s'obtient en exposant clairement aux parents les besoins dentaires de leurs enfants. (Journal of the American Dental Association, livraison d'avril 1938).

"Les substances hydro-colloïdales pour la prise d'impressions", par E. W. Sleighter, Ph.D., et W. R. Kern, D.D.S., M.S.D., Chicago, Ill.

Les auteurs ont fait des recherches sur les changements de volumes de six substances hydro-colloïdales, qu'emploient journellement les dentistes; des expériences préliminaires furent aussi faites sur ces propriétés mécaniques de ces matériaux et ces chercheurs nous font part ici de leurs observations.

1) Ces substances sont très sensibles aux variations de l'humidité. La précision du modèle s'obtient en coulant dans l'empreinte le plâtre ou la pierre le plus tôt possible, après la prise d'empreinte.

2) Il ne faut pas laisser séjourner l'empreinte dans l'eau avant la coulée du modèle, pour au moins trois des substances expérimentées.

3) La présence de fibres dans le matériel contribue à prévenir les changements de volume occasionnés par l'humidité, mais ne paraît pas jouer de rôle dans leurs propriétés mécaniques. (Journal of the American Dental Association, livraison d'avril 1938).

*Compte-Rendu des Activités du Comité des Cliniques et
Conférences pour le Congrès des Dentistes de
Langue Française de l'Amérique du Nord*

qui aura lieu à l'hôtel Mont-Royal, les 2, 3, 4 juin prochain.

FILMS CINEMATOGRAPHIQUES

- 1) "Nouvelle technique pour la construction des dentiers partiels",par M. le Docteur R. Rochon, Détroit
 - 2) "Extraction des troisièmes molaires",par Dr George Winter, St-Louis
 - 3) "Fabrication de dentiers immédiatement après l'extraction",Dr Swenson, New York
 - 4) "Fabrication de dentiers complets",Dr George Buckley, New York
 - 5) "Fonction physiologique des cellules 'in vivo' "American Society for Control of Cancer, New York
 - 6) "Impression de la face au moyen du Negocol",Dr P. Geoffrion, Montréal
 - 7) "Ablation d'un frein anormal",Dr G. Plamondon, Montréal
 - 8) "Anesthésie générale",Dr M. Clermont, Montréal
 - 9) "Fabrication d'une plaque en acier inoxydable",Dr J. de Wever
 - 10) "Traitement de la pyorrhée par la méthode dite d'Electro-Coagulation",par Dr Earl Laurin, Montréal
 - 11) "La céramique, précieux adjuvant de l'orthodontie",Drs Sarrazin et Larue, Montréal
 - 12) "Apectomie et préparation d'une pile pour coiffe en porcelaine",par Dr René Sarrazin, Montréal
 - 13) "Traitement de fractures de maxillaires",Dr L. Reeves, Montréal
 - 14) "Radiographie",Dr G. Baillargeon, Montréal
 - 15) "Fabrication d'un pont en porcelaine",Drs Sarrazin et Larue
 - 16) "Méthode de prendre les empreintes au moyen du plâtre pour les appareils d'orthodontie",par Dr McClelland, Montréal
 - 17) "Traitement de pyorrhée",Dr Jules Thébaud, Haiti
 - 18) "Dentisterie chez les enfants",Ritter Company, Rochester
- etc etc etc etc

CLINIQUES ET CONFERENCES

- 1) "La chimie et ses relations avec la dentisterie",Léon Lortie
- 2) "Tumeurs de la cavité buccale",Dr Ernest Gendreau
- 3) "Moyens d'ancrage pour ponts fixes",Dr R. Lamontagne
- 4) "Cliniques sur l'anesthésie régionale par injections extra-orales",Dr H. Lemieux
- 5) "Diagnostic en vue d'une restauration prothétique",Dr T. Coté
- 6) "Clinique sur les différentes phases de l'obturation en amalgame",Dr J. Lantier
- 7) "Traitement de la pyorrhée",Dr G. Plamondon
- 8) "Jurisprudence dentaire",M. P. Brais, C.R.
- 9) "Les accidents d'anesthésie locale",Dr E. Charron
- 10) "Modernisez votre cabinet dentaire",Dr Conrad Godin
- 11) "Nouveau traitement de la pyorrhée",Dr A. D. Milot
- 12) "La médecine et ses relations avec la dentisterie",Dr Jules Prévost
- 13) "Boite aux questions",Société Dentaire de Montréal
- 14)etc etc etc etc etc

Gérard de Montigny.

Nouvelles *

Le Bal des Anciens de la Chirurgie Dentaire

Samedi, le 12 février dernier, eut lieu à l'hôtel Windsor le bal annuel des anciens de la Chirurgie Dentaire. J'ai eu le plaisir d'assister à cette soirée mondaine et en suis revenu avec un sentiment de véritable satisfaction.

Sous de puissantes lumières, la salle de bal prenait à chaque danse l'aspect d'un vaste champ de fleurs qu'agitait une brise parfumée. Passées au banquet toutes ces fleurs semblaient groupées en un immense bouquet ou chacune d'elles, pour mieux faire ressortir ses vives couleurs, s'appuyait sur une feuille sombre.

Dire que ce fut un véritable succès serait banal. Il y avait plus, cet événement fut remarquable par le caractère professionnel des invités et la dignité de leur tenue. Je me garderai bien d'en nommer car je ferais forcément des oublis sur 350 à 400 présences.

Cependant je me permettrai d'offrir mes plus sincères félicitations au Docteur et à Madame Paul Geoffrion qui présidèrent la fête. Peut-être atteindrai-je en leurs personnes tous ceux et celles qui ont pris quelque part à l'organisation.

Alcide Thibaut, D.D.S.

En janvier dernier le gouvernement de la République d'Haiti a décerné au Docteur Paul Geoffrion la décoration de l'Ordre et du Mérite à titre d'officier.

Nous félicitons notre confrère avec d'autant plus de sincérité que nous le croyons digne de cet honneur.

Le IVème Congrès des Dentistes de Langue Française de l'Amérique du Nord

Ce congrès aura lieu au début de juin. Ceux qui désirent présenter des travaux et des cliniques, sont priés de se mettre en relation avec le docteur Paul Geoffrion. Ce sera cette année un événement sans précédents. Les organisateurs ont dû choisir l'hôtel Mont-Royal pour avoir l'espace requis pour de telles assises. De nombreux films canadiens et américains seront déroulés sous nos yeux et expliqués en français. On dit que l'exposition d'appareils et de matériaux dentaires sera telle qu'on n'en a jamais vue de semblable.

Le 9 février mourut à Sherbrooke Madame Georges Armitage mère du docteur Guelph Armitage. A notre confrère et à sa famille, nous offrons nos sincères sympathies.

* Nous prions les confrères de noter que toute nouvelle qui nous parvient après le 10 du mois, ne peut paraître dans la livraison du mois suivant car la matière de chaque livraison doit être rendue chez l'imprimeur un mois d'avance. Si chacun voulait nous faire parvenir les nouvelles de sa région, notre travail en serait grandement facilité.

—*La rédaction.*

Cette page avait été préparée, imprimée et corrigée pour paraître dans le numéro de mars.

Nous ignorons pourquoi l'imprimeur l'avait omise.

—*La rédaction.*



VANCOUVER:—Twin peaks, the Lions, rear majestically to inspire visitor and resident alike.

The Fifth Pacific Coast Dental Conference will be held in Vancouver, July 4-8. This Conference is held every three years and this is the first time that a meeting has been arranged in Canada.

Canadian dentists who can attend this Convention will have the opportunity of not only obtaining a wealth of dental knowledge but will be able to enjoy a vacation that is different, amid natural scenery that is unsurpassed.

To the west, Victoria, on Vancouver Island, the "wonder playground"!

To the north, Alaska and the Yukon, the land of totem pole and the midnight sun!

To the east, the famous Cariboo Trail along the Fraser River Canyon!

All trails lead to British Columbia this summer.



HAROLD W. HOAG, D.D.S., L.D.S.

Toronto, Ontario.

President of Academy of Dentistry, Toronto, 1938-39.

Past-President of Toronto East Dental Association.

Past-Master of Huron-Bruce Masonic Lodge.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, JUNE, 1938

NO. 6

What Report Should a Physician Expect from a Dentist?*

by GEORGE A. MORGAN, D.D.S., Toronto, Ontario

IN preparing to answer such a question as the title of this paper suggests, one must take into consideration that medical practitioners have come to realize that oral infection, more specifically that which pertains to the dental structures and their surrounding tissues, may act not only as a focus of infection but also constitute a physical load or drag. For this reason elimination of infection either by extraction of teeth or treatment, is frequently indicated. Likewise, it should be appreciated by the dentist, that dental infection is but one link in the chain of aetiological factors in certain diseases and its significance is directly proportional to its relationship with other causative factors. Moreover, it should be understood that it is not necessary that teeth, or the structures directly adjacent to teeth, should show demonstrable symptoms of infection to be aetiological factors in certain diseases.

If patients who suffer from disease traceable to distant foci of infection are to be benefited, it will be through sincere co-operation of the physician and the dentist, each doing his part in a most thorough manner. It should be remem-

bered that physicians referring patients to dentists are, as a rule, chiefly interested in the degree of oral infection harboured. Many arguments may be advanced for a more thorough clinical and roentgenological diagnostic examination of the dental arch and investing structures. A minimum of fourteen dental exposures is considered essential. Such an examination is, in all fairness, due all referred patients who present themselves in a dental office for diagnosis, and will often provide a more comprehensive basis for future medical or dental treatment.

In making a dental report such diagnostic aids as, the pulp vitality tester, transillumination, a thorough examination of the floor of the mouth, tongue and vestibule, coupled with an exhaustive dental history, should be utilized in the summation of a concise diagnostic chart.

Dental report sheets vary widely as to their form but in general should be such that all necessary information can be easily recorded and interpreted. It is suggested that the chart as presented, which is double sided but here separated into

* Read before the joint meeting of the Academy of Medicine and the Academy of Dentistry, Toronto, January 12, 1938.

Name		Tel.					
Address		Ref. by					
Occupation	Sex	Age	Ht.	Weight	Recent Gain	Loss	Temperament
Family Record	Age if Living	Details of Health, Diseases or Complaints				Age at Death	Cause of Death
Mother							
Father							
Past Illnesses and Complaints	Any knowledge of Diabetes, Arthritis, Neuritis, Myositis, Rheumatic Fever, Myocarditis, Endocarditis, Pneumonia, Pleurisy, Tuberculosis, Nephritis, Cholecystitis, Appendicitis, Sinusitis, Iritis, Anemia, Digestive Disorders.						
Past Dental History and Complaints	Previous Swellings, Neuralgia, Toothaches, Pain due to Thermal Change, Pain on Impact or Pressure, Pus Discharge, Bleeding of Gingivae, Periodic Tenderness or Mobility.						
	Previous Extractions due to:						
Present Health and Complaints	Under Physician's Care	Name		Periodic Physical Exam.			
	Physician's Report	General Health					
	Stools: Regular	daily, Irregular	Laxatives used				
	Sleeps	Appetite	Languid, Energetic, Subject to Headaches		Severe or Mild		
Present Dental Complaints	Pain						
	Discomfort						
	Inefficiency in Mastication						
	Gingival Disturbances						
Dietary Study	Foods						
	Water	glasses in 24 hours.	Milk	glasses.	Tea	cups.	Coffee cups
	Masticatory Habit						
	Digestion						
Susceptibility							
Present Health Classification							
Index							

Figure 1.

four parts for illustration, is most complete and easily compiled, requiring only the ticking off or circling of the necessary information to be conveyed and therefore readily and easily interpreted.

The first page of any diagnostic dental chart as shown in Fig. 1, should contain such general information as the case at hand warrants. The second page as shown in Fig. 2 should contain definite information in regard to the periapical and peridontal condition of the teeth as found from a combined clinical and roentgenological examination. The third

page as shown in Fig. 3, should classify dental infection and questionable bone or soft tissue findings into two groups. In the first group are placed those teeth which should receive attention regardless of any possibility of relationship to systemic disease. This group therefore includes all teeth with marked periapical infection, teeth with such severe pyorrhetic involvement or gingival infection that local treatment is contra-indicated, retained infected roots, impacted pericoronally abscessed teeth, residual areas, cysts and foreign bodies. In the second

What Report Should a Physician Expect from a Dentist?

group are listed roentgenologically negative, non-vital teeth, border line pyorrhetically involved teeth, and such other probable sources of infection as should be removed in addition to those in the first group, if the systemic condition of the patient requires the elimination of all possible dental foci.

Generally speaking, in regard to pyorrhetically involved teeth, it should be pointed out that multi-rooted teeth with bifurcation involvement and single-rooted teeth with less than one-third of their bone structure supporting them, should be considered definite sources of

infection, and therefore classed in group one.

Thickened leukoplakias and ulcerating lesions about the lips which tend to persist and do not clear up under the usual treatment, should be considered potentially malignant. Many patients with blood dyscrasias such as pernicious anaemia have symptoms of the disease referable to the mouth. Many other conditions such as Vincent's infection, actinomycosis, odontomes, heavy metal deposits as evidenced by gingival blue lines, due either to occupation or leucetic treatment, exostosis of the mid-line of

[illegible]

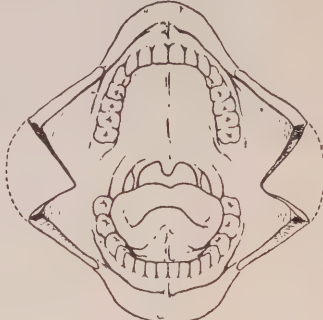
Figure 2.

GROUP ONE		Periapical Infection	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(Sufficient local evidence to warrant removal)			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		Pyorrhea	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		Impacted or Unruptured, Nos.....																
		Other causes, Nos.....																
GROUP TWO			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
(To be removed in addition to Group One, if all dental infection is to be eliminated)			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		Impacted or Unruptured, Nos.....																
		DEGREE OF PERIAPICAL INFECTION	O I II III IV															
		Pyorrhea, O I II III IV																

Index

VITALITY TEST															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Discolored Loose Painful Malposed Elongated Hypercementosed Pulp stone No. canal Fractured Occlusion	Hypertrophic Painful Recession Exudative Fistulous Pigmented New Growth Anemic Inflamed Stomatitis	Atrophic Hypertrophic Necrotic Osteomyelitis Residual area Cystic area Abrasion 1-2-3-4 Erosion 1-2-3-4 Deposits 1-2-3-4 Cleanliness 1-2-3-4
--	--	--



POSTOPERATIVE							
DATE	SWELLING	TRISMUS	TEMP	PAIN	Elimination	SEVERITY	GEN. CON.

DISMISSED.....POST-OP. PICTURE TAKEN Yes..... No.....

Figure 3.

the hard palate, the epulides and many forms of malignant and benign tumours are often first noticed by a thorough clinical and roentgenological dental survey. For purpose of quick tabulation and recognition these conditions when present should be noted and if possible, sketched on the diagramatic open mouth, Fig. 3, which should be an integral part of any dental chart. Page three as shown in Fig. 3, has a space for the result of a vitality test on each uncrowned tooth, keeping in mind the fact that the vitality test is not in itself diagnostic, but merely a link in the chain of diagnostic evidence.

Also page three as illustrated has a space reserved at the bottom for post-operative care and treatment details.

Page four as shown in Fig. 4, contains information which may be needed in certain referred cases requiring special attention including bacteriological examination and findings. Recent knowledge leads us to believe that such common dental conditions as pulp stones, hypercementoses and cementomas are not aetiological factors in the production of systemic disease and it is therefore recommended that the removal of teeth in and around which these conditions are

What Report Should a Physician Expect from a Dentist?

found is not justified solely because of the presence of these conditions. Completed dental diagnosis and additional remarks are recorded on page two, Fig. 2.

The percentage of residual areas of infection, retained roots, impactions, cysts, supernumerary teeth, and so forth, is far too high. The dentist who is associated with group medicine or the dentist in private practice, should make every effort possible to find and eliminate infection, and to stress its prevention. He should not be handicapped in making a diagnosis by lack of time or apparatus; and

operative procedures, whether dealing with pyorrhea or with the removal of teeth, should be carried out under the most aseptic conditions and with the minimal amount of trauma.

In conclusion, it should be stressed that in regard to patients referred by physicians, it is the dentist's duty to notify the physician, either by letter or by telephone, of the patient's arrival, at which time he, the dentist, will be acquainted with several medical findings which will be recorded and which may influence his dental diagnosis, which,

Gen. Appearance	Colour of Skin	Facial Contour	Nutrition	
Lips	Colour	Hypertrophy, Ulcer, Fissure, Cyst, Herpes, Mucous Patches, Neoplasm		
Tongue	Coated	Ulcer, Fissure, Leukoplakia, Neoplasm		
Saliva	Normal, Limpid, Viscous, Abundant, Scanty			
Sub. Lingual	Normal, Cyst, Ulcer, Mucous Patches, Neoplasm			
Cheeks	Normal, Hypertrophy, Ulcer, Mucous Patches, Neoplasm			
Hard Palate	Normal, Trauma,	Fistula,	Ulcer,	Neoplasm,
Soft Palate	Colour	Ulcer, Inflamed, Perforated, Neoplasm		
Tonsils	General Appearance			Pus on Pressure
Glands	Submaxillary	Submental		Parotid
Hygiene	Good, Fair, Neglected, Teeth Brushed	daily	Method	
of	Gums Brushed	Massaged		
Mouth	Dentifrice used	Mouth Wash	Dental Floss	
	Previous Periodontal Treatment		Last Prophylactic Treatment	
Gingivae	Normal, Gingivitis, Periodontitis			
Calculus	Seruminal		Salivary	
Caries	Immunity		Susceptibility	
Occlusion	Bad, Poor, Fair, Good, Excellent			
	RADIOGRAPHIC EXAM.			
	Pulpless Teeth, Impacted Teeth and Caries noted on films are detailed on previous page.			
Root Frag'ts				Cysts
Residual Areas				Neoplasm
Periodontium	Widening of Pericemental Space			
	Loss of Alveolar Crest			
	Rarefaction of Alveolar Bone			
	Pocket Formation			
Laboratory	R.B.C.	W.B.C.	Haemoglobin	Colour Index
Exam.	Urine	Metabolism Test		
Physical	Cardio Vascular			
Exam.	Respiratory			
Bacteriological				
Exam.				

Figure 4.

upon completion, should be forwarded along with the patient's dental rays to the patient's physician. It is suggested that this procedure be followed rather than giving the dental report and x-rays to the patient to take to his physician. The correction of these two above men-

tioned and too frequent oversights on the part of the dentist would do much to bring about a closer co-operation between our two professions, and should do much to foster closer medical-dental relationship.

2 Bloor Street East.

What Report Should a Dentist Expect from a Physician?*

by GEORGE S. YOUNG, B.A., M.B., F.R.C.P.(C.), Toronto, Ontario

WITH the recognition of the frequent relationship between ill-health and the teeth there has been an increasing need for better co-operation between physicians and dentists. It is the business of both to treat disease and to promote health and comfort. Both have their special training and each can help the other in giving adequate service to the public. Undoubtedly there has been more co-operation in the last few years, but the situation still leaves much to be desired.

Speaking from the standpoint of the physician his report in the first instance may be really a request for information which only the dentist can give and the latter may be asked to make his investigation thorough enough to include a report on x-ray films of the non-vital teeth at least. Obviously if a physician has x-ray films made without reference to a dentist he is overlooking the importance of thorough dental investigation. X-rays do not constitute a court of final appeal by any means.

Should the dentist be told why the information is desired? Certainly that is often desirable. Investigation is always

more satisfactory when the investigator knows why the examination is required. Of course the patient will tell the dentist what he himself knows or thinks he knows, but the details he gives may be quite misleading. The physician cannot always reveal the true state of affairs to his patient and even if he tries to do so his words may be misinterpreted. The information as to the nature of the trouble which has led to dental investigation should generally be given directly to the dentist by the physician.

It is difficult and perhaps unnecessary to enumerate those cases in which the physician is interested in what dental investigation may reveal. They range all the way from halitosis to serious disease. It may be a question of arthritis, neuritis or fibrositis. Dental infection may be at least an aggravating factor in such conditions as diabetes, secondary anaemia or gastro-intestinal disturbances, etc. The dentist should have knowledge of the existence of these not only because investigation can be more intelligently carried out but because the scope of the dental treatment, if required, may have to be determined by the gravity of the case

* Read before the joint meeting of the Academy of Medicine and the Academy of Dentistry, Toronto, January 12, 1938.

What Report Should a Dentist Expect from a Physician?

and this may be a matter of discussion between dentist and physician. Then there are cases of doubt. Should treatment be conservative or radical in the presence of a merely suspicious tooth? The physician's knowledge may help in deciding and so may that of the dentist. But of course this means conference.

Not infrequently a patient is referred to the dentist for treatment of quite obvious conditions such as caries and pyorrhea. Communication directly with the dentist will help to insure that the advice is followed. Vincent's infection about the teeth may require dental service before it can be cured. Conference may be advisable in cases of nutritional defect and disturbance of metabolism. Certainly a physician should report on conditions like cardiac disease and allergy which may affect the giving of general or local anaesthetics.

The method of communication is worth some consideration. Frequently, if any report is sent at all, it is given to the patient through verbal instruction. This may not reach the dentist, or if it does, it may be unreliable. Indirect methods often give rise to misunderstandings which prevent real co-operation.

The ideal plan would be to use a reference card or a letter to be given to the patient or sent by post. The practical difficulty about this is that the average physician would think it involved too much time. For the present to advise the reference card or letter would seem to be a counsel of perfection too high to be attained, although this plan will eventually be followed. There is, however, the telephone, which has the advantage of bringing physician and dentist into direct communication with each other, and besides, it permits discussion.

The present purpose is merely to emphasize the need for better co-operation between physician and dentist. Of necessity there must be differences of opinion at times. Where this happens the interest of the patient is paramount. The opinion of a consultant, either medical or dental, is quite in order, but this should be obtained with the knowledge of all concerned. If this is done in the proper way and the patient is told that these differences of opinion are sometimes inevitable, there is no reason why the prestige of either physician or dentist should be impaired.

Dentistry is placed differently from medicine in its relations to the public. Sick people, and even those who only fear sickness, seek, without coercion, the aid of doctors. But only very few of the vast masses of our population voluntarily submit themselves to dental attention. Dentistry, in most cases, is preventive; or at least it is not, in the mind of the layman, curative, as medicine is curative. Therefore though dentistry can contribute as much or more than medicine to national well-being, it can do this only after the people have been taught to accept its attentions. In the phrase of commerce—the demand has to be created. That is why propaganda is more necessary to the fulfilment of our ideals than to those of any other profession.—Edward Samson, L.D.S.R.C.S., Eng. F.C.S. in B. D. Journal, March 15, 1938.

It is that cursed and diabolical suspicion between man and man and nation and nation that robs Europe of that sense of security that is essential to the unity of spirit which we must have before the world can function aright.—Earl Baldwin.

The Open Door

by W. A. MOLINE, D.M.D., Spokane, Washington, U.S.A.

WOULD it surprise you to know that the future of dentistry is in your hands?—Oh yes it is!—in your hands. You are a unit in the great machine of dentistry, and in the care of that great machine lies the oral health of the nation. The effectiveness and efficiency with which that machine functions depends on YOU!

The old long-drawn out game of solitaire is over. The isolationist is dying by inches. (Maybe he doesn't know it, but he is dying just the same.) The days of smug individualism are over. If the business of dentistry is to survive, but one door is open. That door is characterized by one word, and that to its fullest and deepest meaning, *co-operation*. In united effort there is strength.

Yes, we do have associations, but they are so loose-knit. They do not hold together under the heavy strains which the public, with whom we work, places upon them. We must have a common bond which will hold *all* dentists together.

Are we to scrap the associations? No, never, but through them this bond of union must work for the betterment of the individual, whether it be the public or the dentist. The resulting service to the public will be bettered automatically.

United effort and work through co-operative channels and associations is not a new idea. In the earliest times family groups formed clans; these clans formed nations; and these nations, because of common interests and objectives, instituted laws which governed and held the people in one union.

As the people advanced intellectually and society became more complex, it was no longer necessary that each man should

produce every commodity to maintain life, i.e. produce his own food, build his own house, make his own boat or hunting equipment, do his own blacksmithing, etc. Each man specialized in the production of one article which everyone needed and through the channels of trading he obtained the other things he needed.

The more skilled workers banded themselves together in groups called guilds and anyone desiring to belong to these guilds had to produce and measure up to the standards set by the members of the guild.

The objective of the guild was twofold, to protect the members of the trade, and to protect the public. Practically all unions and trade and professional associations today are based on these elementary fundamentals with probably a little too much emphasis on the former and far too little thought given to the dear old public, who really foots the bill.

There is a definite place in the present scheme of things for the organized groups of professional and business men. True, our own interests must be protected, but only as our interests are protected is the public protected. The professions cannot effectively and efficiently perform their public service when they are hobbled by ill-defined, impotent, inept, and inefficacious laws.

The destiny of the professions is in the hands of those who are capable and able. Capability will be personified in the united action of the professions through their organizations; ability is personified in the specialized educational background.

Dentistry has the foundation of a

potent public service program completed in its educational and technical requirements, and the framework for building its public relations program is already started in the association set-up. The next thing dentistry must do is to put a roof on the framework to keep dentist-public relationship out of the wet, when the deluge of petty misunderstandings and political demagoguery descends upon us.

In other words this roof of protective public relationship which we need, should be built of Royal No. 1 shingles of ability, laid in a regular, even pattern of effectiveness and efficiency. We need a program that will "cover" all people. We need to employ only one "carpenter," our national association.

Someone asks, "Why go to the trouble of setting up a complex and expensive public relations program when each man could do his part?" Your roof is only as good as the quality and quantity of nails which you use. Use old, worn out nails of method, and it does not matter how good are your shingles of ability; the roof won't hold together when a blast of wind (hot or otherwise) hits it. We must use new galvanized methods. The public will judge us by our methods and results, and not by our intentions.

For a more concrete and complete elucidation let us cite but one instance wherein a universal and uniform public relations program could be made to serve dentistry better, and give the public a better understanding about ourselves.

Do you ever have shoppers come to your office, the kind who want to know everything in the book, including your fees for fifteen different ways to fix their mouths? Do you like to stand there, first on one foot, then on the other, and be put through the third degree, or, do you object and politely tell them so, and thus end the discussion.

The chronic "shopper" is a problem in most, if not all dental offices. The present problem is how to handle them, but as this is not a cure, the eventual problem will be to discourage them. Obviously the only method by which they can be reached is through a nation-wide, well planned program of public relations. Many such knotty problems could thus be at least partly, if not entirely, solved. Many misunderstandings, many delusions, many superstitions could be aired and corrected in such a program.

With a comprehensive program in working order, a clearing house for dentist-patient grievances could be established with subsequent redress via suitable vehicles. Such a clearing house would reveal the many personal problems to be mass problems and could be treated with mass explanations. Under the present arrangement of disjointed, local programs with one dental society playing up one phase of dentistry and another district society using some other medium or vehicle, and still others with further ideas, it is impossible to give the people throughout the nation a uniform picture of dentistry. These mass problems cannot be solved by a piecemeal semi-educational plan. Dentistry must have one voice which speaks. Dentistry must present one front to the people.

The way to present this front to the people is by using the single program policy. This policy will tell the public that dentistry has one aim, one objective—that of giving the people one all-important service, oral health. This policy will give the dentists one goal to strive for.

In past years, dentistry's wanderings along the economic paths of business have been without direction or aim. Lack of a definite public relations program has been the main reason. Too much attention has been focused on technique. Often the young graduate would

hear his elders say that if he produced good work he would get along and everything would be rosy. Those promises did not materialize and the young man began to wonder if their elders really knew what they were talking about.

Naturally a certain amount of coals are heaped upon the heads of the poor uninformed who have made such inconsistent promises. Young men wonder if dentistry is such a great profession after all. Lacking experience in the world of affairs they can not, nor are they able to discern the root of the trouble. The fault, they feel, is with the older men. The older men come back and indict the younger men for lack of interest and lack of work in furthering the aims and ambitions of dentistry. The vicious cycle is established and, today, for those who lack a vision of the future, this attitude still persists.

Nothing that the profession can do would be more profitable than the establishment of a public relations program which would publicly relate dentists more closely to each other. If our present organization would become so closely knit, our objectives so clearly crystallized, our motives so well defined, our

aim so universalized, we soon would see an autonomy with the ranks of dentistry which no other plan could possibly produce.

To obtain the goodwill of the public is highly desirable. To give them an understanding of our motives is the only manner in which we can win their support in the time of need. But, equally important, and necessarily a forerunner to the establishment of such relations, is the fostering of goodwill and understanding within the ranks of the profession. Not until dentists meet on a common ground and face a common goal will they see harmony in the ranks of the associations.

Are we interested in the improvement of our profession? Are we desirous of obtaining the goodwill of the public? Are we anxious to see autonomy in the ranks of our associations? Unquestionably the answer is evident. The answer calls for but one course of action. That action demands that we march forward as one body, through the door that is open to us in a comprehensive, unified public relations program. The moment we enter that door we will enter upon a new era in dentistry.

Sun-Bathing

The technique for sun-bathing is not difficult to grasp. It is age-old, and the animals follow it instinctively. They seek the sun in the morning hours before the meridian is reached. In the heat of the day the animals seek the shade, and we should do likewise.

Sunshine so quickens the physiological reaction of the body that over-indulgence in sun-bathing at any one time is rather like the overwinding of a clock. . . . Our first sun bath should not be longer than fifteen minutes. As the body becomes acclimatized to the sunlight it is possible to lengthen the time of exposure, although this should rarely exceed forty minutes at one time. As soon as the skin flushes and the sense of exhilaration floods through we should resume some light clothing.

We should yield up our body to the sun slowly, but see to it that every part is duly exposed. First expose the limbs, then the thighs, the chest, and finally the whole body. In exposing the body the back should be exposed only half as long as the front and the shining of direct sunlight into the eyes should be avoided.

—Dr. Stanley B. Whitehead in "New Health".

Motor Casting Machine

by ORMAN WHITMAN, D.D.S., Calgary, Alberta.

THE essentials of an inlay casting machine would seem to be:

- (a). Positive casting force.
- (b). Smooth and rapid torque in centrifugal type.
- (c). Adapted for rapid placement of the hot inlay ring.
- (d). Small in size for: 1. Lab. area.
2. Investment quantity.
- (e). Totally enclosed to prevent gold splash.
- (f). Inexpensive and easy to construct.

With these requirements in mind, the following apparatus was constructed:

RAW MATERIAL:

- (a). Dental lathe stone chuck, preferably with a screw tightener.
- (b). 6 inches of Anaconda $\frac{3}{4}$ inch inside diameter hard copper pipe, approximately 15c.
- (c). 1 stock plug for same, 25c.
- (d). 1 stock cap for same, 25c.
- (e). A short piece of brass tubing approximately $\frac{3}{4}$ inches outside diameter, to be cut into inlay rings. This is a stock size and just fits inside the copper tubing.

STEPS IN MAKING CASTING MACHINE:

- (1). Cut several inlay rings from the brass tubing, (e) $1\frac{1}{4}$ inches long.
- (2). Cut off part of the hollow end of the plug (c) to form a washer.
- (3). Insert washer into one end of the copper tubing (b), driving the washer in with the inlay ring until the ring is flush with the end of the tubing.
- (4). Pin washer in place.
- (5). Remove inlay ring and place cap (d) over same end. Drill a $\frac{1}{8}$

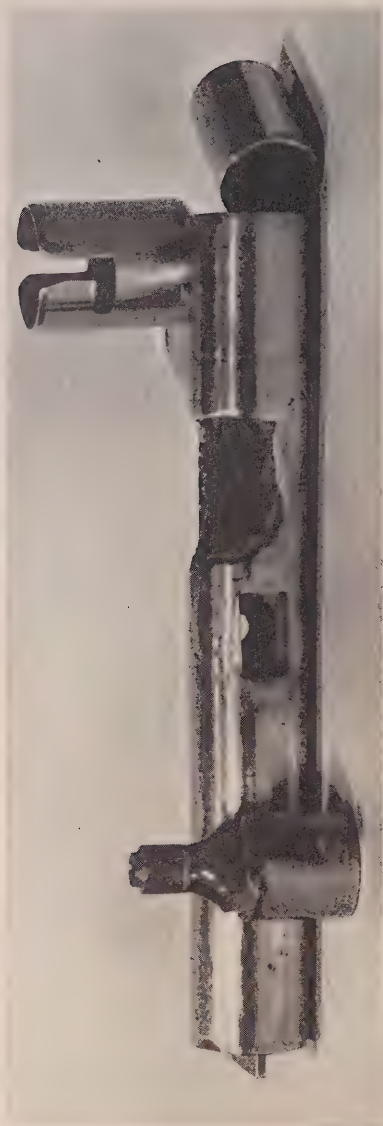
inch hole through both sides of the cap and tube. Remove cap and drive a pin directly through the two holes in the copper tube. Silver solder on both sides. File out the section of the pin on inside of the copper tube and cut pins outside of tube to $\frac{3}{8}$ inch in length (see illustration). These form the two studs with which to hold the cap securely in place.

- (6). Cut bayonet-type slots in the cap, to the holes already drilled (see illustration). This cap may or may not be turned down on the lathe to a reasonable wall thickness.
- (7). File the shoulder of the stone chuck (a) to a rectangular form. Make a similar aperture in one side of the tube equidistant from the ends. A $\frac{1}{8}$ inch hole is drilled in the other side to take the end screw of the stone chuck.

Cut an aperture in the copper tubing for the crucible as illustrated, the inside lip being much deeper than the outside to reflect the flame over the gold. This aperture starts just mesial of the copper washer which has been pinned in the tube. Form the crucible with wet asbestos.

To balance the machine, insert the stock plug (c) into the opposite end of the tube. Drill a hole through both sides of the tube and plug $\frac{1}{4}$ inch from the end of the tube and pin it in place temporarily.

Set one of the inlay rings on the ordinary small sprue-former and fill with investment. When it has hardened, place it in its position in the casting machine



ASSEMBLED. ACTUAL SIZE.

followed by the retaining cap. After attaching the chuck to the middle of the tube, place the chuck over a nail driven

into the wall and balance the machine. This is done by removing material from the plug or adding a little lead shot to

same until there is an approximate balance. Attach to motor shaft and carefully turn on motor to low speed. If the balance is correct, water in a dish placed on top of the motor will show no wave motion. Adjust until this holds true.

It has been found that asbestos with a fluxed surface serves as well as moulded and baked crucibles with the advantage that it can be changed with very little effort when dirty. The motor must not be run without the inlay ring in place and the retaining cap turned over the studs. This is the only disadvantage of

this machine but is of no practical significance.

The melted gold when cast, does not upset the balance sufficiently to make any vibration. The motor starts the casting apparatus with very little effort, low speed being used. There can be no loss of gold through splashing.

The machine has been used for two years to cast full crowns or two pontics, or three inlays in the one ring without difficulty. Following the suggestion of Dr. Stan Corben, the motor casting machine has been used successfully for centrifugally investing inlays and for pouring models for indirect inlays.

Conventions

CANADIAN DENTAL ASSOCIATION (DELEGATES' MEETING), VANCOUVER,
JUNE 30-JULY 2.

43RD ANNUAL MID-SUMMER MEETING OF NEW BRUNSWICK DENTAL SOCIETY,
FREDERICTON, JULY 4-6.

PACIFIC COAST DENTAL CONFERENCE, VANCOUVER, JULY 4-8.

ANNUAL MEETING OF THE BRITISH DENTAL ASSOCIATION, BELFAST,
JULY 29-AUGUST 3.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.

K. C. Campbell, Secretary, 88 Portland Place, London, W.1, England.

EASTERN ONTARIO DENTAL ASSOCIATION, KINGSTON, ONTARIO,
SEPTEMBER 26-27.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

AMERICAN ACADEMY OF PERIODONTOLOGY, ST. LOUIS, MO., OCTOBER 20-22.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

14TH GREATER NEW YORK DENTAL MEETING, HOTEL PENNSYLVANIA,
NEW YORK CITY, DECEMBER 5-9.

No two things differ more than hurry and despatch. Hurry is the mark of a weak mind, despatch of a strong one. A weak man in office, like a squirrel in a cage, is labouring eternally, but to no purpose, and in constant motion, without getting on a jot; like a turnstile, he is in everybody's way, but stops nobody; he talks a great deal, but says very little; looks into everything, but sees into nothing; and has a hundred irons in the fire, but very few of them are hot, and with these few that are he burns his fingers.—Colton in Medley.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office,"
314 Somerset Building, Winnipeg.

*A Treatise on Dental Office Practice**

By W. N. MILLER, D.D.S.,
Flint, Michigan, U.S.A.

ECONOMICS is based on truths. If we learn how to present the truths about dentistry in a logical and attractive manner we cannot help drawing a busy and profitable practice around us.

All truths concerning the professional aspects of dentistry are based on a thorough diagnosis.

The success of the business aspects of your profession is approached through a careful estimate of the remuneration needed to give the patient your care at a profit.

My whole effort is directed toward the man who wants to maintain a high standard of dental care, and improve it continuously. Everything I tell you about the business of dentistry is based on the premise that the patient's health interests are being served best by the man who combines good business ability with good professional ability.

What constitutes a thorough diagnosis? Is the making of a thorough diagnosis a simple thing? The questions to be asked a patient cannot be left to chance and the answers given by a patient cannot be entrusted to the memory. It is absolutely essential to have a form which we follow in questioning and recording clinical evidence. The style of form may be simple or complex, this

depending on the thoroughness with which we have learned to conduct our diagnosis. In brief, a diagnosis form must have seven features: (1) the identity of the patient with whatever information can be had; (2) a record of the various aids employed in arriving at conclusions and explaining the conclusions to the patient; (3) a record of conditions in the oral cavity at present; (4) a record of conditions hidden on ocular examination, but revealed by the roentgen rays or transillumination or other agent; (5) a picture of the patient's tendencies as revealed by a history of his parentage; (6) a record of the prognosis, which is the hope of comfort and safety that you extend to your patient; (7) a record of the repairs proposed to bring about these results.

This is purely professional information and indispensable. I make this record and tell my story to every patient so that he or she may know what care would, in my opinion, serve them best. Even if I think that their financial situation will not permit extensive repair at present, I outline their needs just as carefully. One can never tell what value a person places on a healthy mouth and body. We have no right to judge that a

*Condensed from address given before the Academy of Dentistry at Toronto, March 29, 1938.

patient is entitled to only half the information that we have concerning him because we think him poor. The wealthy man often loses his health by saving his wealth, and frequently the poor man has maintained his health by spending his wealth.

We should let the patient be the judge as to his ability to finance the proposed service.

If a patient of middle age, at the end of our recital to his needs, says at once, "Well, Doctor, how much will such a program cost?" why is it ever considered so unnecessary to make a careful estimate? To those of us who follow this method, any other seems the sheerest folly. What is your answer? I will tell you mine: "I will go over the proposed services individually and in detail and try to arrive at a fee which will closely approximate the cost to you."

ESTIMATE FORM

Name _____ Date _____

All estimates are approximate but effort is made to approach the exact cost as nearly as possible.

Preliminary gum treatment		
Prophylaxis		
Full mouth x-rays		
Study models		
Emergency repairs to present		

With my assistant's help, I fill out the estimate form. I identify the tooth and surface, determine the type of restoration and estimate the individual fee. At the end of the list, I write, perhaps: "Four conduction anaesthetics, \$20; six

infiltration anaesthetics, \$18." I then add the column and say, as I hand the form toward the patient, "The items that are printed at the top of the form are usually necessary before it is possible to make a real diagnosis and estimate. These have been taken care of now in your case. Those following represent the services which I feel that you need. The numbers represent the teeth and their surfaces and the type of work needed is written after each. Of course, you do not understand those details of our business, but it gives you a better picture of the amount of repair needed to give you the best care possible at my hands."

Three courses are open to the patient:

1. He may say, "When shall we start?"
2. He may say that he would like to follow the plan suggested, but the stock market or business conditions prevent it now.
3. He may acknowledge the probable impossibility of his being able to enjoy that type of care.

How do we proceed?

1. In answer to the question "When shall we start?" I ask for the appointment book, find out the days and the time of day most convenient for the patient and make sufficient appointments ahead through the weeks on those convenient days, and at the convenient hours mentioned, to complete the case. The patient then knows that he has a regular date, say, every Monday and Thursday morning at 10 o'clock until the service is completed. He is told of the advisability of arranging as long appointments as he can spare and as are consistent with the nature of the work. He is told that we try to meet our appointments promptly and will appreciate his doing the same. He is invited to change his appointments by advance notice if necessary. He is asked how he can arrange the payment for the proposed services. If he says, "In any way that is customary with you," or words to that effect,

he is told that he will receive a statement on the first of every month and we will expect his check promptly.

2. In answer to a statement regarding temporary lack of funds, the patient is advised to have done such temporary work as is imperative for his present comfort and keep the complete service in mind until he can see his way clear to proceed. (I have had cases completed from two to five years after the first consultation.)

3. In answer to the man whose financial prospects are poor, I ask, "How much do you feel that your situation will permit you to spend for health of your mouth? If you can give me an idea as to what you can spend either now or over a period of a year or two, I will see whether I can render you a desirable service at that figure. If I cannot, I will tell you so."

These dialogues occur frequently in my office. If a patient hesitates or appears ill at ease in deciding, I make it easy for him. I say, "Why don't you hold your decision for a few days; talk it over with the family and take your time to be sure what you want to do? If I work for you, I want to have your confidence. I don't want to hurry you into something that will prove a hardship to you and cause you to distrust my motives. Just remember that your health is more important than your money, so if you feel that you cannot trust your purse in my hands, please don't trust your health there."

The busy practice should be in a constant state of flux. Patients are always moving along to better things. If fewer patients are leaving you than the number of new patients who seek your service, then you can select those whom you wish to serve. Your selection may be automatic because of the establishment of a fee to which some of the new patients are not yet educated, that is, they will

eliminate themselves by going no farther than permitting you to give them a thorough prophylaxis, make x-ray film examination and other diagnostic measures indicated, record your finding, and advise the type of care you decide is best for them. I make a flat fee of \$25 for this service and if you do the same you will find it quite fair. Exceptional care will consume more than \$25 worth of time but that is not wasted time even if the patient does not proceed with the advised care. You may rest assured that your method of handling your practice has one more person out speaking about it. And don't for a moment consider that patient lost. Many of them will return later, better convinced of your value.

Then you may purposefully eliminate some whose personalities clash with yours. Let someone else have them and make your practice more pleasant. If your time is in such demand that more selection is necessary why not eliminate some phase of dental care—full denture service for instance. That is a logical elimination as it casts off the least desirable age group in your practice, that is the group whose life expectancy is shortest and whose reference value is least. Keep your practice as young as possible.

A careful, intelligent diagnosis of the needs, and an estimate based on that knowledge, plus a background of experience, which is necessary for good judgment, are a combination that make for good dentistry, good fees, pleased patients and contented dentists.

I urge you to improve your diagnostic methods and perfect your ability to make fair, profitable estimates and contracts. Leave nothing to guess work about the service needed. Leave nothing to chance about the patient's financial co-operation. "To give is more blessed than to receive" applies only to charitable cases.

A disillusioned boy discovers himself in business with his mental shelves

stocked with a commodity called knowledge and skill. Because of a lack of training in the art of distribution he cannot dispose of his stock. Without "turn-over" there is no incentive to replenish or freshen the stock, so he drifts on, vending his wares at an insufficient profit to a clientele that still calls him a robber. In ten years he is rendering a poorer service compared to the existing possibilities than he did when first starting. This is the horizontal cycle of inefficiency.

Conservatively, seventy-five per cent of the dental profession are dangerously near to this condition. The result is a demand for change, be it panel dentistry, group practice, or state control. When less than one-fifth of the needed dental work in this country is being done, and three-fourths of the only men who can possibly do it are working short hours at low wages, it is high time that this group takes stock of itself, and quits berating "Dentistry." Dentistry is all right. There may be something wrong with you.

When the colleges begin to give the same attention to preparing the dental student to conduct the distribution department of his business that they do now in comparatively "over-stocking" his shelves with commodities, it will not be necessary to snatch thirty-five or forty-year old dentists out of this "Slough of

Despond" which is threatening to submerge our profession.

If curricula of dental schools were modernized on business principles, the faculty would be cognizant of the fact that any means of livelihood is a business and to equip for business is only the first of three components. Before business can be said to have started, a customer must be attracted and satisfied, and if that venture is destined to continue, its receipts must show a profit over disbursements.

Good business, then (dental or otherwise) is dependent on three factors: First, a quality merchandise or service delivered or rendered: Second, a profit figure. Third, a satisfied customer or patron.

In an effort to overtake the mirage of keeping dental instruction up to the "standard of medicine" (whatever that may be) our myopic colleges are guilty of overlooking dentistry's peculiar needs. Medical care deals largely with patients in some degree of immediate illness. Dental care, after pain is relieved, corresponds to elective surgery and this depends on the patient's desire and ability to pay the fee asked.

Fundamentally, the college curriculum is the original source of the inefficiency in office management prevalent in seventy-five per cent of offices. *(To Be Continued)*

It will be a pleasant task to explain the theme of this book (How to Win Friends and Influence People, by Dale Carnegie).

Carnegie's system is a way of getting the best out of life. His way needs little memorizing. It is easy and fascinating to practise and can be expressed in eight words—SEE THE WORLD THROUGH THE OTHER MAN'S EYES.

How do we start living on the principle of seeing the world through the other man's eyes?

First we shall try to make the other man feel important. . . . Second, we shall refrain as much as possible from criticizing the other man. . . . Thirdly, we will praise the other man. . . . Fourthly, we shall gain the friendship of the other man by appreciating him. . . . Similarly, and fifthly, we shall take an interest in the other man.

So valuable is it to master this knowledge of seeing the world through another man's eyes that a famous man said, and truly I believe, that no man who can do this need have any worry about his future.—C. A. Lyon in the "Sunday Express".

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM SASKATCHEWAN: CASE HISTORY

Male, age 65. Eight years ago all upper teeth were extracted. Before the teeth were extracted an x-ray showed an antrum involvement with a fistula draining into the mouth in the bicuspid region (the bicuspids and 1st molar had been extracted 15 years before and a bridge inserted) on the right side. In due time a denture was made which would not stay in place, and so was not worn. The patient moved away and I did not see him for seven years. He returned this winter and I proceeded to make him a new full upper denture. I took an x-ray of the right side and discussed the old antrum condition with his physician, and we came to the conclusion that the fistula had closed up. The denture fits nicely and stays in place (without correga) for about half an hour and then drops down. On examination the denture is quite moist on the palatal surface on the left side but dry as a bone on the right side. There has been no evidence of any discharge on the denture. I placed it under the tap and soaked it and then placed it back in the mouth, and within 15 minutes it was wet again on the left side but dry on the right and as soon as it gets dry down it comes.

I would appreciate finding out the cause of this condition and what treatment should be instituted.—*F. G. Garvin, Canora.*

REPLY FROM U.S.A.:

The above question was forwarded by Dr. L. E. MacLachlan of Ottawa, On-

tario, to North Western University, Chicago, and the following reply was received.

I have been gathering information for you from several sources, i.e., our departments of surgery, chemistry and physiology.

The consensus of opinion is that this case is one in which there has been some destruction of the mucous tissue along with the elimination of some small glands. There is no way in which this can be restored. Our physiologist suggests that the patient might use one of the adhesive powders, but to moisten it with glycerine which would remain moist longer.—*R. O. Schlosser, Chicago.*

REPLY FROM NOVA SCOTIA:

The problem presented is certainly rather an unusual one. I think from the history and description that it can be taken for granted that the more obvious causes of denture displacement as slight muscle, cheek or lip impingement can be ruled out. Neither does it seem to be a case of a slow ingress of air due either to a poor seal or to entrance through the old fistula, which would seem to be properly closed. I think then that the explanation is probably the one pointed out, namely that the mouth is dry on that side. This area should normally be supplied by the mucous glands of the hard palate and just why they should have ceased to function is a puzzle. It would not seem possible to do anything to restore their function after this length of time.

A solution which appears to me to be

worth trying is to use some substance which will have a more prolonged "wetting" effect than water. Glycerine was the first substance thought of and it might be tried, but it should not be overlooked that glycerine under these conditions might be irritating. A second suggestion is vaseline. The disadvantage of any material of this nature is its more or less temporary effect, plus the nuisance of application.

If the cause is absence of secretion from the mucous glands it would seem unlikely that they would be entirely absent from that side of the mouth and thought might be given to the extension of the denture on this side to cover the maximum area in the hope that the periphery of the denture would be on normal tissue and obtain sufficient "wetting" effect in this way.

I am indebted to Dr. Ritchie and Dr. Young, with whom I have discussed the problem.—*J. Stanley Bagnall, Halifax.*

REPLY FROM QUEBEC:

This is a difficult problem to solve without seeing the patient and with no other evidence to go on than the above Case History.

A review of the various causes, however, which might produce this lack of retention in a full upper denture, leads one to the conclusion that the cause may be nothing more than improper adaptation, or insufficient peripheral seal, or both, of the denture base: this, assuming that there is a normal secretion of the saliva.

The main reason for this conclusion is that the healthy mucous membrane and submucous tissue of the mouth do not absorb moisture, but rather secrete it from numerous serous and mucous glands situated in the tongue, lips, cheeks and soft tissues of the hard palate and velum. In addition to these, the three pairs of salivary glands, parotid, submaxillary,

and sublingual, pour into the mouth approximately 2.8 pounds, or a little over one imperial quart of saliva in an average 24 hour period. The rate of flow of saliva increases tremendously under masticatory and other stimuli. It would be interesting to note if this patient's denture were retained better during meal time or while chewing some substance, such as gum or a raisin.

With all this liquid being secreted into the mouth and on every surface of it, with muscular action and capillarity to spread it, how can any area become dry, particularly, when covered by a close fitting denture which would prevent evaporation from the surface covered. Assuming that the fistula is closed, the palatal surface of the denture could not possibly dry in fifteen minutes if the denture edges fitted exactly and if the surface of the palate was moist when the denture was applied, especially if the mouth itself was constantly moist, as this outside moisture would form a seal around the margin of the denture.

None of the nerves which supply the salivary glands pass through or near the maxillary sinus, therefore, it is improbable that they could be affected by a chronic antrum infection.

I would suggest the following procedure:

1. Make certain that the fistula is closed.
2. Examine all the mucous membranes of the mouth for colour and health.
3. Ascertain whether salivary secretions, particularly from the parotid on the right side are normal. To do this have the patient sniff glacial acetic acid and then immediately place a cotton roll over the opening of Stensen's duct and observe how rapidly it becomes saturated by the serous exudate.

If the above three tests indicate everything to be normal, may I suggest another try at a new denture, made from an im-

pression which, when complete, exhibits the following characteristics:

1. areal contact
2. peripheral bearing
3. extension for retention
4. equalization of pressure
5. rounded muscle trimmed borders.

The writer wishes to express appreciation to Professor C. P. Martin, Faculty of Medicine, McGill University, for the interest taken in this case.—*I. K. Lowry, Montreal.*

REPLY FROM ONTARIO:

According to the history given, I believe that the past antrum involvement has nothing whatsoever to do with the failure of the denture to properly stay in the mouth.

Blood dyscrasias and other systemic factors may be eliminated due to the dryness of the palate being unilateral in nature.

I would advise examining the patient's palate with the denture out, in an attempt to see whether or not both sides of the palate become dry simultaneously. If they do it is definitely some local condition associated with the denture.

The exertion of too much pressure in the impression technique upon tissues which might be sensitive to this pressure may result in strangulation of the mucous glands and inhibition of normal secretions. The denture should be checked for heavy occlusion and a rebase may be necessary to provide relief from any undue pressure on the affected side.

Another possibility is insufficient post-damming on the right side permitting leakage, resulting in dryness and therefore looseness of the denture.—*Douglas Tanner, Toronto.*

REPLY FROM ALBERTA:

It is always difficult to determine the cause or suggest a remedy for any case without first having an opportunity to

examine the mouth or a cast of the same. From the history of this case, however, I would say that physiologically the scar tissue on the right side where the fistula was located is not functioning normally, i.e. it is not secreting mucous as is the case with normal mucous membrane. This would partially account for the dryness of that part of the denture which covers that area. No doubt there is some destruction of bone in this area and unless provision is made in taking the impression to increase the contact on this right side, the base will not rest as firmly on the soft tissue as it does on the normal side. Therefore the interposed layer of moisture is not retained on the right side because of the light contact between the base and the tissues. This is just another way of saying that the physical laws of adhesion and cohesion which help to hold dentures in position in the mouth, are only active when we fulfil certain conditions of adaptation.

In order to stabilize the denture, first of all I would suggest that a check be made of the occlusion to see that there are no high cusps or inclined planes that would dislodge the denture in any movement of the jaw. Then increase the contact over the area of the vault on the right side where necessary by using black carding wax under biting stress. Next increase the peripheral contact all around the base of the denture to complete the seal, especially across the distal periphery of the vault which should rest on the immovable part of the soft palate. This also can be accomplished by the use of black carding wax under biting stress. Make sure that the periphery of the denture is sufficiently large to fill the mucous fold. If not, use black wax for this purpose. To complete the impression use plaster wash under biting stress and reline or rebase the denture. This should give the desired retention and stability.—*H. A. Gilchrist, Edmonton.*

The Forum

• DENTIST AND PHYSICIAN

by HARRY M. MOSS, New York City

IT HAS happened to be my good fortune to speak at length during the past few years, with many physicians, who, although seemingly at least are ready and willing to remove us from the category of tinkers and artisans, are still woefully lacking of any idea as to the fact, that not just one or two operations, but practically every single step in progressive dentistry involves not only mental factors, but actual painstaking, time consuming procedure, which is not and can never be compared with the average office, home, hospital or clinic visit of a physician, when compared patient for patient. I believe if this evident inequality of comparative service time is sold to the physicians, then and only then will we be able to enter successfully into comparative economic discussions and sit around the table to debate with physicians, the actual and prerogative necessities of our profession, as the dark clouds of socialized medicine and dentistry, health associations and insurance hang over the horizon.—*Excerpt from Retiring President's Address of First District Dental Society of New York.*—*N.Y. Jour. of D.*, February, 1938.

• "SOCIALIZED MEDICINE"

SUMMED up, the socialized medicine scheme, in the view of its investigators, stands indicted on the following counts: It promotes dishonesty, on the part of the insured and the physician who collects a fee; it increases public costs of government and individual costs of living; it promotes deleterious consumption

of drugs, and it actually promotes sickness. Other reasons exist for rejecting the medical bureaucracy scheme, but those enumerated seem sufficient to condemn it.—*Star, Oneonta, N.C.*, 9-9-37, per *The Apollonian*.

• THE EFFECT OF MEDICAMENTS ON THE MOTILITY OF THE ORAL FLORA WITH SPECIAL REFERENCE TO THE TREATMENT OF VINCENT'S INFECTION

by S. LEONARD ROSENTHAL, D.D.S.,
Philadelphia, Pa.

(Summary of paper in *Journal of Periodontology*,
July, 1937)

A NEW test of antibacterial efficiency is described.

Sixty-eight solutions recommended for the treatment of Vincent's infection are evaluated.

The action of chromic acid is purely caustic. No oxygen is evolved when chromic acid is applied to the tissues.

Nascent oxygen is of no value in the treatment of Vincent's infection other than mechanical cleansing.

Arsphenamine is not only a spirocheticide, but is efficient against the entire oral flora.

Among those substances which are not injurious to the oral tissues, those instantly stopping movements of the entire flora are: 10% aqueous solution of arsphenamine, 10% arsphenamine diglucoside, 25% aqueous solution of iodine, Talbot's iodoglycerol, tincture of metaphen, and 1.5% aqueous solution of bismuth sodium tartrate. Slightly less efficacious but still of value are: saturated solutions of copper sulphate and Mapharsen, 20% argyrol, and Lugol's solution.

Most efficient against the non-motile flora and not injurious to the tissues are: Lugol's solution, 25% aqueous solution of iodine, Talbot's iodoglycerol, and tincture of metaphen (untinted). Markedly affecting growth, but with a few colonies surviving are 10% aqueous solution of arspenamine, 10% arspenamine diglucoside, saturated solution of Mapharsen, and tincture of metaphen (tinted).

• HEALTH INSURANCE

THAT Health Insurance has much to recommend it in this enlightened generation few will be prepared to deny. Unfortunately, however, a close analysis of its working in Europe and Britain suggests, that however successful it may have been as a political expedient, its success in the promotion of health and physical fitness has not been nearly so spectacular. A point frequently overlooked by its most enthusiastic supporters is that a nation is not strong because its citizens are many. It is quality that counts, and no increase in the number of tainted lives can possibly add to the strength and well being of a community, because such an increase adds to the burdens thrust upon the backs of industrious and successful citizens. Consequently, in the framing of the present legislation, every care should be taken to ensure that the sum of human efficiency and fitness is not diminished under the mask of emotion and philanthropy. Assuming for argument's sake that Health Insurance is primarily designed to promote national health and efficiency, the logical conclusion follows that it should concern itself more with youth and the building up of a strong and virile race. But where Medicine is concerned it is difficult to suppress the emotional factor, with the result that in those countries which have adopted the measure under

discussion, the tendency has been to make it too comprehensive. Naturally, therefore, it follows that when the legislation associated with it is examined dispassionately in the light of simple Eugenics, it becomes obvious that it tends to defeat the very object for which it was designed.—*Professor J. Reid Burt, in New Zealand Dental Journal.*

• HABITS AND THEIR CONTROL DURING CHILDHOOD

by LELAND R. JOHNSON, D.D.S., M.S.D.,
F.A.C.D., Chicago, Ill.

THUMB-SUCKING

IN SOME instances, sucking the thumb is accompanied by some practice that causes pain, such as pulling the hair or scratching the body. Habitual sucking of the thumb may cause a severe malocclusion and sometimes leads to a spinal curvature. Not all cases of thumb-sucking in early infancy cause malocclusion. If the habit is broken early enough and normal lip-function exists, the normal functioning lips act as an orthodontic appliance and correct the malocclusion. If this normal lip-function does not exist, the malocclusion in all probability will continue with increasing severity.

There have been many misleading articles and statements written in regard to the harmless effects of thumb-sucking. These conclusions have been based on studies which go only half way. It is indeed unfortunate that such information has been disseminated, since many cases of malocclusion and facial deformity are in the making as a direct result of the false sense of security that such articles have created.

TREATMENT OF THUMB-SUCKING

The treatment of the thumb-sucking habit is usually a tremendous task. No

one method is successful in all cases. It is important that the habit be broken at an early age. Numerous mechanical appliances are used. In very young children, elbow cuffs, splints, aluminum mits, wire frames for the thumb, etc., may be used, or the night clothes may be pinned. In older patients, the deciduous first molars may be banded and a bar constructed to extend across the palate. The bar may or may not carry sharp spurs and should stand far enough away from the palate to avoid any possible suction between the thumb and the palate. This may convert a pleasure-giving situation into an unpleasant one and thus effect a cure. Bitter aloes may be painted on the thumb, but its efficiency as a curative is doubtful.

Another method which is successful in some cases involves practising the habit before a mirror. This method is based on the theory that when the habit becomes a conscious act, it is automatically broken. In its application, the child should be taken from his favorite play, placed in front of the mirror and told to suck the thumb as he watches the performance in the mirror. This should be done in the presence of the mother and the whole procedure should be undertaken in a serious mood. The length of each practice period should be governed by the age. A child will learn more in longer practice periods if relatively long intervals are allowed to elapse between the periods than in repeated trials at short intervals.

Placing boxing gloves on the hands has been successful in numerous cases. The gloves permit freedom of movement and present a thumb too large for the mouth. This method is best applied to those cases in which the habit is practised as an aid in inducing sleep.—*Excerpt from A.D.A. Journal and Dental Cosmos, September, 1937.*

• EFFECTS OF PREGNANCY, MOUTH ACIDITY, AND AGE ON DENTAL CARIES

by DANIEL E. ZISKIN, D.D.S. and HAROLD HOTELLING, Ph.D., Columbia University, New York City

THIS study is based on a group of 324 pregnant women, with pregnancies ranging from one to eight months. By the method of least squares statistical analysis of the data shows that pregnancy not only does not incite tooth decay but that some factors operating during pregnancy actually prevent tooth decay to a significant extent. Literature is cited dealing with the problem of dental caries generally from the standpoint of local environmental aetiological factors and metabolic. The environmental factors include a consideration of hyperacidity of the saliva and diets consisting of coarse particles. The metabolic studies include a consideration of dental caries in such diseases as rickets and scurvy and imbalance of the endocrines. The status of the teeth of Eskimos and other aboriginal peoples are dealt with. Other statistical studies on the occurrence of dental caries in pregnant women are listed and discussed. The observation is made that more teeth may be extracted during pregnancy than before the gravid state, but such extractions may become necessary for reasons other than progress of tooth decay.

From the foregoing we conclude: (1) That pregnancy, per se, is not a cause of dental caries, (2) That while the saliva is slightly more acid during pregnancy, the degree of acidity is not sufficient to produce tooth decay, (3) That some factors operating during pregnancy actually prevent tooth decay to a significant extent.—*Summary and Conclusions of paper in J. D. Res., December, 1937.*

• **WHAT LIES AHEAD FOR BUSINESS
AND THE HEALTH PROFESSIONS**

(Excerpts from address given by Merle Thorpe at the Annual Dinner Meeting of the Academy of Dentistry, Toronto, October 26, 1937)

OUR own Secretary of Labour told us when our Social Security Bill was signed, that we were twenty-five years behind Germany in social insurance. It made many of us somewhat shame-faced to think that we had been so derelict in our attention to the unfortunate, until some others, those of my magazine in particular, sent a correspondent over to Germany to find out just what had happened in that country during these twenty-five years, and I should like to submit that if the medical and dental professions would like to do a good job, not only for their professions, but for all of those businesses from natural resources through manufacturing and distribution and transportation and communication and finance and insurance, you could do nothing better than to pose a few questions, seeking only information and facts.

I have set down five or six such questions, as follows:

1. Is it or is it not a fact that sickness insurance in Germany has created a scandal in the large amount of funds used for administration?

Our report shows that 27 per cent of all the money paid in has been used for administration and that there are 32,000 state physicians in Germany today, while there are 36,000 bureaucratic administrators. After six years we have now more administrators than we have doctors in Germany.

2. Is it or is it not a fact that sickness insurance in Germany has increased the number of sick days per year from five and a half to twelve and a half, while in the United States the percentage has not increased over the same period?

3. Is it or is it not a fact that state health insurance in Germany and England has shortened life expectancy and increased infant mortality in striking contrast to the experience of the United States with its independent practice?

4. Is it or is it not a fact that authentic studies show that any comparison between compulsory health nations, and the United States on death rate, on disease subject to human control, the odds are all in favour of the private medical practice over here?

5. Is it or is it not a fact that medical science has advanced more slowly, that medical practice has become more of a drudgery in those countries which enjoy state medicine?

6. Is it or is it not a fact that there is grave doubt that the suppressing of personal life necessary to proper administration of health insurance by a political agency, while tolerated in Europe, would be resented here?

In other words, in Germany a large part of the administrators are those who have to go out and make sure that the patient is really sick. Then, they have to set aside about 4,000 to go around and make sure that the druggist is not in collusion with the patient and when the state doctor writes out a prescription for castor oil, that the patient does not go and trade the prescription for a carton of cigarettes instead. We have some 10,000 of the 36,000 making sure that at all times the thing is being administrated properly.

We do not deny that nothing *good* may come from foreign countries. We do know that millions of fine citizens have come from them, despite their alleged better social system, and that millions more would come to backward America if the bars were only let down. Let us make sure that this tide of migration continues to face this way.

Nor is the dream of socialized medicine and dentistry as far from realization as we may think in the United States. A few days ago I read in a Washington paper that Senator Wagner is reported to be preparing a health insurance amendment to the Social Security Act for introduction next year. Details of the plan are secret. The amendment may call for a payroll tax, possibly of one per cent, to finance medical and hospital care for workers.

A natural step toward socializing medicine would be to attach it to the Social Security program and that seems to be what will be done ultimately. It is being studied with a view of inclusion, but a better plan is to experiment with it for a while. It was decided to make the initial experiment in the Federal Home Loan Bank Board. Last month the Government set up this socialization of medicine with three thousand of the home employees of the Federal Home Bank Board. This Board has pledged \$20,000 of tax money to see it through the first year and an additional \$20,000 has been pledged for next year if the Board is convinced that the program is sound.

The ultimate purpose is to extend medical and dental service to everyone.

I intended telling you something about the experiment in Germany as to the budget for sick insurance. It started with 200 million marks, and in two years it reached 680 million marks and grew to 2,330 million marks in 1929, so you can see it is pretty easy to persuade people to get sick and take advantage of something that is offered to them free. As we do this we deplete the free capital on this continent that has given us the opportunity, with our enterprise to build new enterprises, to try out new things. As we go more and more into monies expended by governmental agencies we will not have that wherewithal which is necessary if the enterprises are to work.

• LEUKOPLAKIA

by S. WILLIAM BECKER, M.S., M.D.,
Chicago, Ill.

(Summary of paper in A.D.A. Journal and Dental Cosmos, September, 1937)

LEUKOPLAKIA consists of white patches at the mucocutaneous junctions and on the mucous membranes of the body. They are adherent and cannot be easily removed.

Leukoplakia occurs most commonly in men, and is usually seen at or after middle life.

The causes are local irritation and syphilis. Local irritation may arise from a smoker's pipe; chewing tobacco; natural or artificial teeth in faulty occlusion; badly fitting plates, bridges and lingual bars; electrical currents induced between dissimilar metals used for fillings, and denture material to which the patient is sensitive.

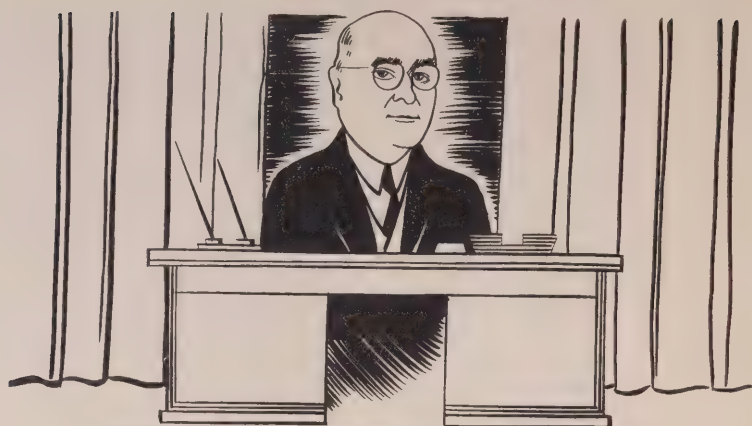
The lesions due to local irritation are at the site of irritation. Lesions due to syphilis are commonly on the tongue and at the oral commissures.

The lesions must be differentiated from those of Fordyce's disease, lichen planus, lupus erythematosus, psoriasis, oral thrush, canker sores and syphilitic mucous patches.

The change is essentially in the epithelium, which has a great tendency to become malignant, squamous-cell cancer, a serious type, resulting.

Treatment must destroy the epithelium, resulting in a scar, which will not become malignant. Treatment of choice is electric cautery or surgical diathermy. Radium is not recommended, because of patchy results and the danger of radium changes in the tissues. Leukoplakia involving the entire tongue is difficult to eradicate.

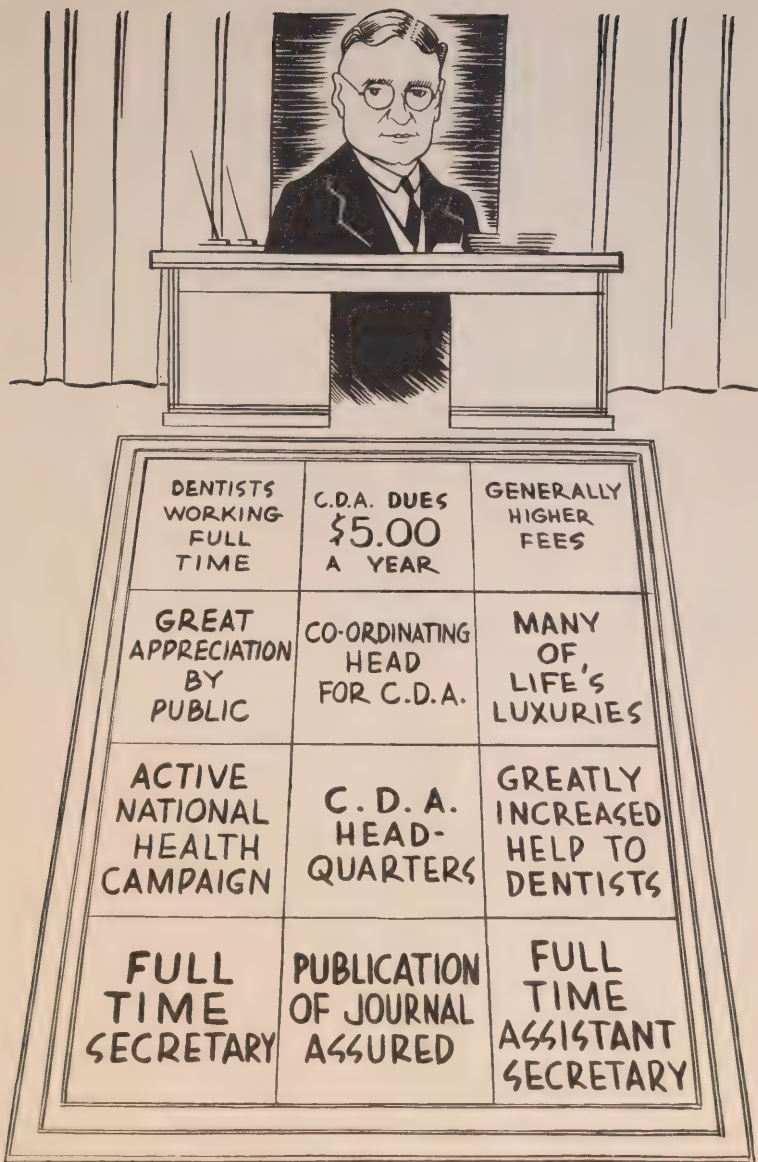
Biopsy should be made of any ulcerative lesion in order to detect early malignancy. If treated early, the cancers can be easily cured.



DENTISTS WORKING PART TIME	C.D.A. DUES .50¢ A YEAR	DENTISTS RECEIVING LOW FEES
LITTLE APPRECIATION BY PUBLIC	NO CO-ORDINATING HEAD FOR C.D.A.	FEW OF LIFE'S LUXURIES
NO NATIONAL HEALTH CAMPAIGN	NO C.D.A. HEAD- QUARTERS	VERY LITTLE HELP TO DENTISTS
NO SALARIED FULL TIME OFFICERS	PUBLICATION OF JOURNAL NOT ASSURED	NO SALARIED PART TIME OFFICERS

This is the design of the 50c Canadian Dental Association rug on which we asked Dr. Pallen to work in 1937.

WHICH RUG



This is the design for a \$5.00 Canadian Dental Association rug which we should have for Dr. Moore by 1939.

DO YOU PREFER?

• **NUTRITION AND DENTITION**

By E. V. McCOLLUM, M.A., Ph.D., Sc.D.,
School of Hygiene and Public Health, Johns
Hopkins University, Baltimore, Md.

"NOTWITHSTANDING there are still differences of view among research workers concerning the aetiology of dental caries, there is unanimity of opinion that most, if not all, of the specific effects of diet on tooth development are known, at least in the qualitative sense. The ameloblasts are of ectodermal origin, and are, accordingly, specially sensitive to even mild deficiency of vitamin A. It is clear that even though the blood may be of normal composition as respects calcium- and phosphate-ion concentrations, the ameloblasts will lay down hypoplastic enamel if they are deprived of vitamin A to a degree which would cause incipient morphological changes of the keratinizing type. On the other hand, if the ameloblasts are normal functionally they cannot deposit perfect enamel unless the blood calcium- and phosphate-ions are present in normal concentration. The phosphate-ion concentration of the blood is profoundly influenced by deficiency of vitamin D; hence the importance of this nutrient in tooth development. As respects dentine, there is a primary significance of vitamin C, since the odontoblasts are peculiarly sensitive to even mild deprivation of this substance. Deficiency of vitamin C, even to the extent of inducing only a sub-clinical scorbutic state; may be expected to induce the laying down of hypoplastic dentine. But the deposition of normal dentine is just as dependent upon a normal concentration, in the blood, of calcium- and phosphate-ions as are the bones and enamel. Hence vitamin D plays an essential role in tooth development. In order to insure normal tooth development, these dietary factors deserve special consideration in the planning of

the diet of the child."—*Journal of Dental Research*.

• **BUREAU FOR DENTAL INFORMATION**

THE Greater New York Bureau for Dental Information, which has this month started to function, is sponsored and supported financially by The Greater New York Dental Meeting Committee, The New York Academy of Dentistry, The First District Dental Society and the Second District Dental Society.

All material for publication or radio broadcast, with the exception of that released or broadcast through the Oral Hygiene Committee of Greater New York, must first be presented to the Bureau and released by the Bureau. The Bureau will not release anything of a political nature. All notices of meetings of the organizations represented and all official sections of those organizations must be submitted to the representative of that organization at least ten days in advance of publication. Wherever possible essayists' papers which may contain matter of interest to the lay public should be in our hands ten days in advance of the meeting, so that it may be abstracted and properly prepared for publication.

It is the aim of the Bureau to be just what the name implies, a source of information for the newspapers of the Greater City and also for other non-dental publications. We will establish a committee capable of answering any dental question in a clear dignified manner for any newspaper or other publication, upon request. The name of the person answering any question will not be published, but the Bureau will receive all recognition for such information. The Bureau wants the Chairman of all Publicity Committees to co-operate with us and send in to the representative all material his organizations want published but the Chairman of the Publicity Committee must always bear in mind the fact that the press will publish only material which is of interest to the public in general and will write their copy accordingly. The Bureau does not promise to publish all copy received and may, at its discretion, rewrite such copy to better fit it for publication.—*From Second District Dental Journal, Feb., 1938.*



PRINCE EDWARD ISLAND



W. T. Way, Charlottetown

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

NOVA SCOTIA



A. W. Faulkner, Halifax

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgecombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

Self-Interest

The writer was discussing dental health problems quite recently with the executive of a large company which employs about 400 men and women of rather a superior type. This particular official has charge of employment and is in a better position to discuss health problems than most men in executive positions on account of his special field of activity. He made the statement that, in his opinion, at least 60 per cent of his employees did not consider that the teeth played any part in the matter of one's health.

Is this an important matter to the employee, the employer, the community, to say nothing of the dentist? At whose door does the fault lie and what can be done about it? These are questions which flash through one's mind upon hearing such a startling statement. My reply is that it does matter a great deal to all of us, and the fault lies at the door of the dental profession. Just how we can best deal with this is a matter of immediate concern.

In the handling of this problem, as with many others, what is needed

most is the individual, loyal support of the dentists of Canada to our national association, which has been treated with grave indifference by many dentists in the past. It is hard to estimate just how valuable a well-organized, adequately financed, Canadian Dental Association could be in clearing up many of our present difficulties. Of, course, very little can be accomplished by the payment of a one-dollar membership fee.

Look over the advertisements in any modern magazine and you will see that the whole appeal is one of self-interest. As a profession we will be forced to make our appeal on the same basis. People will become interested in dental health when they realize its importance, and that it is infinitely more valuable than all the many luxuries which are so common in these days, and they will only accept this as a fact if presented in an effective, modern way. Something is being done, but much more should be done, and it could certainly be accomplished more effectively through the efforts of a national organization.

In the average office, the self-interest view of the patient is too often overlooked. We talk about inlays, fillings, bridgework, dentures and other mechanical structures, and yet the patient could probably get along fairly well, from a health standpoint, without any teeth, certainly much better than with even one infected tooth. Why not, for example, awaken some self-interest in the mind of the patient by giving him a hand mirror, and showing him the depth of a pyorrhea pocket by means of a probe, and explaining the serious health problem involved. Show him, by means of roentgenograms, study models, charts, records, etc., what is involved, from a health standpoint, if his mouth is neglected.

Could we not also work up a little more self-interest among ourselves? Perhaps we need some education along this line. For instance, how can we hope to justify a reasonable fee for a denture to a private patient if we are willing to make dentures for relief cases at a fee agreed upon with those in authority, at too low a figure. At present \$24.00 per denture is obtained in St. Paul, Minnesota, for this service, and more than this in some other centres.

Not long ago the Public Dental Health Committee of one of the provinces of Canada had to appear before a City Council to discuss and agree upon adequate compensation for the dentists in making dentures for those on relief. The dental committee insisted on a fee of \$20.00 per denture and were met by the argument that in a prominent central city of Canada the dentists were giving similar service for \$12.50 per denture. (They now receive \$15.00.) Under these circumstances it was not an easy matter to argue the justice of the \$20.00 fee, and it is to the credit of the men on this committee that they finally succeeded. This is not intended as a criticism of these centrally located dentists as they have approached this problem with warm hearts and a most charitable feeling towards their fellow-citizens

who are in dire need. On the other hand such arrangements have their repercussions throughout the length and breadth of our land, and as has been stated, it becomes difficult for a dentist in private practice to justify a fair fee to his patient under such conditions. Obviously there should be a guiding hand throughout Canada in dealing with all such matters. If one member suffers, all suffer.

Recently at an Ontario town council meeting, one of the aldermen said that he would like to see a full-time dentist engaged by the town, and that one could be obtained from Toronto for \$1200 per annum. Unfortunately this statement is true, but the facts which make it true are pathetic and should surely stir us to action. This and every such problem could be adequately dealt with by a well-ordered organization, Dominion-wide in its influence.

The two outstanding needs facing the dental profession to-day are patient education and education of the dentist. No two dentists are telling the same story to their patients and the public is unconcerned. Let us lift ourselves out of this lethargy and give our support where it can do some good—to the Canadian Dental Association.

I have been frequently asked, "What has the Canadian Dental Association done for us?" My reply is, "What have you done for the Canadian Dental Association?" With the meagre support which has thus far been given, I believe that our national association has done a great deal for Canadian dentistry. With the support which should be forthcoming in the near future, it could revolutionize the practice of dentistry in this country, and solve, to the entire satisfaction of both patient and practitioner, the many important problems which are constantly confronting us.

NEWS FROM THE PROVINCES

BRITISH COLUMBIA:

Pacific Coast Dental Conference

The general topic of conversation among the men in British Columbia is the fifth triennial Pacific Coast Dental Conference, July 4 to 8. Today the program is completed with over one hundred selected essayists and clinicians. Papers will be presented during the morning sessions, while chair and table clinics will take place during the afternoons. All outstanding clinics will be repeated so that everyone will have the opportunity of seeing them. The idea behind this meeting is to present clinics and papers from which the general practitioner will receive the greatest benefit. Motion pictures

will predominate in papers and clinics. This method allows every person to see the technique clearly and to have presented to them the points presented during the operative procedure. The list of clinics and essays is too numerous to mention, but real outstanding, internationally-known dentists are on the program.

The wonderful entertainment program for both the ladies and men, which Vancouver with its marine and mountain scenery affords, will long be remembered by all. For the ladies, boat trips, drives and teas for the entire week will keep them interested.

All dentists of Canada who are in good standing are welcome on the payment of the registration fee. This will be one of the

most worth-while practical dental meetings ever held in Canada, and with the wonders of British Columbia scenery, it will be a very practical holiday which you cannot afford to miss.

Vancouver welcomes you. Send in your reservations early to Dr. W. S. Watson, 304 Birks Building, Vancouver, B.C.

Vancouver Dental Society

The final meeting of the Vancouver Dental Society was held at Quilchena Golf Club, where dental techniques were forgotten for "ifs and ands." Pete Wescott was the winner of the Leach trophy with Alex Dobbins runner-up. Duffy Anderson won the Ash-Temple trophy with Fraser Allen runner-up. Howard Whittaker won the Century trophy of the British Columbia Dental Supply Company with Bill Lea runner-up.

ALBERTA:

Alberta Dental Association

The annual meeting of the Alberta Dental Association was held at Edmonton on May 30. The morning sessions were held in the Medical Building, University of Alberta.

The program was as follows:

8:30—10:00 Immediate Denture-Practical case. Surgical and Phrosthethics Study Groups.

10:00—12:00 Table Clinics-Marshall-Dr. R. W. Bradley

1. Amalgam Technique—Dr. R. L. Scharff
2. Bridge Abutments—Dr. H. B. Ness of Camrose.

3. Inlay Technique—Dr. H. R. MacLean

4. X-rays—Dr. J. G. Roberts.

12:00—1:30 Luncheon at the University. Program by Dr. Wm. Janzen.

2:00—5:00 Annual meeting of the Alberta Dental Association at the Macdonald Hotel.

6:30 Dinner

Guest speaker—Dr. E. Pope, Professor of Medicine at the University of Alberta.

Dr. Gilchrist Honoured

Dr. Harry A. Gilchrist, professor of prosthetic dentistry in the University of Alberta, has been made a fellow of the American College of Dentists in recognition of his outstanding work in the field of dental education. Dr. Gilchrist expects to receive his

degree at the next meeting of the College, to be held in St. Louis, Mo., next October.

Edmonton Dental Society

At the April meeting of the Edmonton Dental Society, Dr. G. M. Little, Medical Health Officer for the city, was the guest speaker. In addition Dr. G. J. Hope gave a talk illustrated by lantern slides, on "Caries and Periodontal Conditions".

A Golf Field Day was held at the Country Club on May 18. This was followed by dinner at the Club House.

The newly elected officers of the Edmonton Dental Society for the coming year are:

President, Dr. E. M. Gowda; Vice-President, Dr. D. R. McNabb; Secretary-Treasurer, Dr. R. L. Scharff; Social Convener, Dr. C. H. Brown.

Calgary Dental Society

The annual meeting and election of officers of the Calgary Dental Society was held in the Renfrew Club, April 11, at 6 p.m.

A very interesting paper on Balanced Occlusion was presented by Dr. W. G. Neilson. The importance of diagnosis and treatment of the slight manifestations of periodontal disease was particularly stressed by the speaker. Preventive treatment, of which the correction of traumatic occlusion plays a prominent part, is of as great importance as the elimination of caries of the teeth.

The following officers were elected for the coming year:

President—Dr. Orman B. Whitman.

Vice-President—Dr. H. N. Heal.

Secretary-Treasurer—Dr. J. E. Hesson.

A committee was appointed to arrange a Golf Field Day in competition with the Edmonton dentists, to be held at Red Deer.

SASKATCHEWAN:

Regina Dental Society

At the annual meeting of the Regina Dental Society held on April 12, the following officers were elected:—

President, Dr. W. H. Ross; Vice-President, Dr. W. F. Hancock; Secretary, Dr. H. J. Kennedy.

At this meeting a resolution was passed to be presented by a committee of the Regina Society at the provincial meeting which will

be held in Regina the end of May. The resolution stated, "We are opposed to all forms of political patronage in connection with dental services." Dr. C. H. Weicker is head of the resolution committee.

Saskatoon Dental Society

The members of the Saskatoon Dental Society and their ladies had a very enjoyable evening in February, when the monthly meeting of the Society took the form of a "Ladies night" program.

The March meeting of the Society was of a more serious nature. Three of the members, Drs. M. J. McDonnell, E. B. Nagle and P. D. Winthroppe gave thoughtful papers on some phase of State Health Insurance. In view of the present intense interest in the subject of State Medicine and Dentistry there was a record attendance, and close attention was given to the essayists.

The election of officers of the above Society for the coming season took place the first week in May, when the following were elected:—

President, Dr. M. J. McDonnell; Vice-President, Dr. C. L. Skinner; Secretary, Dr. A. P. Salter.

At this meeting the Society was fortunate in hearing splendid addresses from two of its members. Dr. Arthur Singer gave an interesting talk on his impressions of the Guggenheim Clinic, of New York, which he recently visited. Dr. D. S. Neuman gave some of the high lights of the seventy-fourth annual mid-winter meeting of the Chicago Dental Society held in Chicago in February, which he attended. Dr. Neuman's comprehensive report of this convention was much enjoyed.

Moose Jaw Dental Society

The closing meeting of the Moose Jaw Dental Society for the present season was held in the Grant Hall Hotel on May 10, with a large attendance of the members. The Election of Officers for the ensuing season was held and resulted in the election of the following:—

President, Dr. A. M. Lowey; Vice-President, Dr. A. Duff Leask; Secretary, Dr. L. F. Hare.

At this meeting a number of practical

questions were introduced for discussion by Dr. Harold Johnson, Dr. A. E. Chegwin and others, and proved highly interesting and profitable.

North Battleford Dental Clinic

Lack of \$1,200 stands in the way of free dental treatment for all necessitous children of school age in North Battleford.

The dentists of this city have offered to draw up a roster and donate their services to a dental clinic, if such can be established in one of the city schools, and made available to the children of parents who are on relief, or whose circumstances prohibit proper dental care for their children through the usual channels.

The cost of equipping such a clinic would be in the neighbourhood of \$1,200.

MANITOBA:

Manitoba Dental Association

Members of the dental profession from points outside of Manitoba, and particularly those from eastern Canada, frequently comment upon the spirit of good fellowship which exists among the Winnipeg dentists. There is no doubt that the monthly get together during the golfing season has much to do with creating and fostering real friendships within the profession. This is in evidence all over the province where "two or three are gathered together" upon the golf courses.

The 1938 dental golf competition got off to a fine start on May 16 at the Elmhurst course with about 45 dentists in attendance. The June meeting at Pine Ridge course will terminate the annual meeting of the Manitoba Dental Association which opens on Thursday June 16, at which Dr. Roy Ellis, Associate Professor with the Faculty of Dentistry, Toronto University will be present and give a lecture on "Recent Developments in the Clinical and Technical Procedures in Gold Inlay Restorations.

ONTARIO:

Change in Dental Relief Regulations in Province of Ontario

The Public Dental Health Committee of the Ontario Dental Association met in conference with Dr. F. A. Kohli, Director of Dental Services, and the Dental Advisory

Committee to the Ontario Government, on April 28. The delegation presented the following recommendations:

1. "That the regulation covering payment for sore or aching teeth be changed to include "and infected teeth." In many cases, the patient urgently requires the removal of several teeth which are a menace to their health but a strict interpretation of the regulations, permits the extraction of single aching teeth.

2. It is understood that if a dentist's account for any one mouth exceeds \$20.00 the sum over this amount is reduced pro rata, in order to keep the sum within the total monthly amount. The schedule of fees is only on a minimum scale and this reduction works considerable hardship on many dentists who practise in areas where a large percentage of the people are on relief. Some dentists are called on to treat a considerable number of cases. We have been informed that some dentists do not render any account to the government because of this difficulty and in this way the profession are carrying a large share of this burden. We would recommend that a dentist should receive full payment of his monthly account up to \$30 per month at least and that this be raised to higher amounts as soon as possible.

3. That the amount provided for repairs to artificial dentures should be raised from \$1.50 to \$2.50. In cases where it is a simple break, \$1.50 is sufficient to cover the laboratory costs but where a tooth is lost or a clasp broken, the costs exceed this amount and the dentist is expected to do this work at an actual loss.

4. Reliable information would lead us to believe that there are many indigent people who have lost all their teeth and cannot afford artificial substitutes. We would recommend that consideration be given to this problem to see if any scheme could be worked out to assist municipalities in providing this service.

5. We are very glad to learn that the Department of Health is making some provision for grants to aid in establishment of school dental services. Perhaps in the not too distant future we may hope for further consideration of some provision whereby dental treatment will be available for adolescents."

It is gratifying to know that the government has acted on the first three of these recommendations to become effective at once. In regard to assistance of municipalities with the denture problem for relief patients and dental service for adolescents (that is secondary school students,) these matters have been left for further consideration.

Public Dental Clinic

A delegation from the Academy of Dentistry, Toronto, met in conference with Dr. Gordon P. Jackson, Medical Officer of Health and Mr. A. W. Laver, Commissioner of Welfare, both of City of Toronto, on May 11. The delegation presented the following letter which was favourably received and the delegates were promised every consideration to carry the proposals into effect.

May 11, 1938.

Messrs. Gordon P. Jackson, M.D.,
Medical Officer of Health,
A. W. Laver,
Commissioner of Welfare,
City of Toronto.

Dear Sirs:

Re Dental Clinic conducted jointly by the City of Toronto and the Academy of Dentistry, Toronto.

It has been the custom for the Academy of Dentistry to have a committee meet with your departments and keep all informed of progress made in this health enterprise; further, at least once each year to request a personal interview with each of you gentlemen. I am pleased to acknowledge your unflinching and kindly co-operation in arranging this conference.

Herewith is a report of accomplishments for year 1937 with comparison figures for 1935 and 1936:

	1935	1936	1937
Patient visits to clinic.....	8946	7274	6781
Patients receiving dental treatment	—	1060	946
Patients receiving denture service	600	600	600
Dental fillings.....	2100	2696	2723
Treatments including prophylactic treatments.....	1030	857	1075
Patients receiving major repairs to old dentures.....	55	48	46
New bona fide applications for denture service not satisfied	984	600	862
No. of dentists assisting in the operative clinic in half days	160	187	220
No. of dentists assisting in denture service.....	139	136	140

It would seem very evident that these figures tell a convincing story of the service

being rendered the citizens of Toronto on relief by the co-operative efforts of your departments and the profession of dentistry. A further figure is interesting viz. 315 dentists in Toronto have contributed to the project since its inception which means that one-half of all dentists in Toronto have had a part in providing dental health service for those without employment.

Our Academy appreciates the action of the Board of Control in advancing interim funds to allow continuity of the service during the first three months of the year. The custom of former years in holding up the service until the passing of the estimates created a serious interruption. Further, the Academy are quite in agreement to continue the dental service co-operatively throughout 1938 on the same basis as 1937 which is as follows:

1. City to provide supplies and maintain clinic.
2. City to provide salaries for dentist and dental nurse.
3. City to appropriate \$9360 in addition to above for the following purposes—
 - (a) To provide 600 new dentures as agreed for bona fide needy patients.
 - (b) To provide, as agreed, a limited number of repairs and refittings of old dentures and bridges where found advisable and where provincial government grant does not apply, disbursements not to exceed \$30 per month.
4. The Academy of Dentistry to provide, from the dental profession in Toronto, the personnel to operate the clinic and provide denture service as specified above in private dental offices.

During the past year the Academy is very appreciative of the fact that there has been no publicity of detailed cost per item of service rendered. It was pointed out at our last conference that such information was misleading to the public and not in the best interests of the service. Your splendid co-operation and consideration in this respect has met with much favourable comment.

Before closing this report, I am instructed by the Academy to make the following observations:

1. That the Welfare Clinic at the outset was instituted as a temporary expedient to meet a need in the interests of health.

2. That it would seem that the clinic was fast becoming a permanent institution, there being an increasing demand and not a decreasing one.

3. That if this promise be true, it would seem fair that dentists contributing this service should receive an increased remuneration.

4. That it is not the desire of the Academy of Dentistry to evade responsibility in connection with the service but facts indicate beyond a doubt, a great need for this dental health service. Further, we maintain that demonstration of such conditions is part of our obligation to the general public as a health profession and to your departments in our efforts to co-operate in public health enterprises.

5. That if the need has been established and has taken on the semblance of permanency, then we maintain that dentists providing this service should receive a reasonable compensation.

6. That in view of the foregoing, beginning 1939 this Academy suggests that an allowance of \$20 be made for each denture with the understanding that the profession continue to man the operative clinic gratis until such time as it is mutually agreed to alter this arrangement.

These observations are brought up at this time for consideration in order that there should be a thorough understanding between all parties and in order that the continuity of the service may not be hampered or disrupted.

In conclusion, the Academy of Dentistry Committee would like to record the fine spirit of harmony and accord existing between your departments and ourselves, not forgetting to mention the splendid services rendered by Dr. Reid, the Clinic Officer.

Respectfully submitted on behalf of the Academy of Dentistry and authorized by Academy Council.

Thomas R. Marshall, D.D.S.

Bay of Quinte District Dental Society

Forty dentists in the Bay of Quinte district met in Belleville on April 28, to re-organize. Dr. Frank Martin of Toronto was the guest speaker.

The following officers were elected:—

President, Dr. W. A. Paul, of Tweed; Secretary, Dr. Gordon Stewart, of Belleville; Committee, Doctors Robert Empson and Jack Marshall of Belleville, and Doctor Jack Harrigan of Deseronto.

Red Cross Dental Clinic

The Red Cross dental clinic opened in the Central school of Kirkland Lake on March 2, for school children whose parents were financially unable to provide dental care. The financial circumstances of the families were carefully investigated before the child was admitted to the clinic. In the thirteen days that the clinic operated 48 children received attention in a total of 69 appointments.

Dr. Hayhurst Honoured

Dr. T. E. Hayhurst of Windsor, Ontario, graduate of the Dental Department, University of Toronto in 1929, has been selected as a member of the Bisley Team. He is Captain in the Essex-Scottish Regiment.

Durham Dental Society

The Durham Dental Society met on April 20 at Oshawa. New officers for 1938-39 are as follows:—

President—Dr. Lundy, Port Perry

Vice President—Dr. H. Armstrong

Secretary-Treasurer—Dr. S. J. Phillips

Auditors—Drs. Cook and Langley.

Dean Mason and Dr. Sydney Woollatt addressed the meeting.

Dr. T. L. Marsh has been appointed chairman of the Public Dental Health Committee of the Toronto Academy of Dentistry.

Officers for Toronto North (District No. 4) for 1938-39 follow:—

President—Dr. Myron Laidlaw

President-Elect—Dr. Gordon Johnson

Secretary—Dr. Ralph Martin

Treasurer—Dr. Harold Shepherd

Dr. Lloyd Sterking was elected to the Academy of Dentistry Council to represent District No. 5 (Toronto West.)

Toronto Centre district elects officers:—

President—Dr. Roy Hendry

President-Elect—Dr. Gordon Knapp

Secretary-Treasurer—Dr. A. O. Derbyshire

Treasurer—Dr. J. G. Perkin

Ontario Doctors to Join C.M.A.

The Council of the Ontario Medical Association on May 3 voted approval of federating with the Canadian Medical Association and so became the third province to become part of the Canadian body. Alberta and Quebec took this action previously and the British Columbia Medical Association is considering a similar step. The Ontario Association will now be known as the Canadian Medical Association, Ontario Division, as well as by its 50-year-old name of Ontario Medical Association.

"In this day, noted for disintegrating influences in Canada, we think this move is a healthy one," commented Dr. T. C. Routley, retiring secretary of the Ontario Association.

"This is a move to meet the national problems of medicine, in a national way," said Dr. A. D. Kelly, Dr. Routley's successor. "If we are to have health insurance in Canada, we think it should be the same system from coast to coast, and it is to meet such problems in a national way that we have taken this important step of federation."

There are 2,400 members of the Ontario group and of these about 1,700 are members of the Canadian Association. Officials hoped the new arrangement would result in increased membership in the Canadian Association.

Ontario Dental Association

The Ontario Dental Association has made an all time attendance record in its convention, concluded May 18th. There were 659 dentists registered, 145 dental nurses and assistants and 207 exhibitors and 110 ladies. Total registration of all persons was 1160. There were guests from every province in Canada and from many centres in the United States as well as from England, West China and Berlin, Germany.

Officers of the Association for 1938-39 are as follows:

President—Dr. J. W. Stewart, Hamilton
Hon. Pres.—Dr. R. S. Woollatt, Toronto
Pres. Elect—Dr. G. V. Morton, Toronto
Historian—Dr. E. W. Paul, Toronto
Board of Governors—

Dr. Ira W. Hamilton, Ottawa
Dr. F. L. Williamson, Hamilton
Dr. R. C. McCutcheon, Highgate
Dr. E. B. Sparks, Kingston
Dr. Lee Honey, Timmins
Dr. E. A. Grant, Toronto

Public Dental Health Committee—Chairman, Dr. E. T. Guest, Toronto

Dr. Ross Thomas
Dr. R. D. Thornton
Dr. Frank Martin
Dr. Tom R. Marshall
Dr. A. E. Higgins

Benevolence Committee—

Dr. H. G. Learoyd, Sutton
Dr. Frank L. Henry, Oshawa
Dr. R. Sydney Woollatt, Toronto.

Orillia Kiwanis Club

On March 28 the Kiwanis Club gave formal authority for the expenditure of not more than \$600 on equipment for the Dental Clinic, which is to be operated by the Town of Orillia. The equipment is to remain the property of the Kiwanis Club, and will be loaned to the Town to be used for the treatment of all Orillia children whose parents are not able to look after the teeth of their children.

QUEBEC:

Montreal Dental Club

Dr. Jordon of Georgetown University was the guest essayist at the meeting of the Montreal Dental Club on April the twenty-second.

His topic was partial dentures, and there has never been a better presentation of the subject given before to this Club. Dr. Jordon is a fluent speaker and has the ability to hold the attention of his listeners at all times.

The members of the Mount Royal Dental Society were guests of the Montreal Dental Club at this meeting.

Dental Nurses and Assistants

Dr. Earl M. Laurin was the guest speaker at the April 5 meeting of the Montreal Dental

Nurses and Assistants Association held in its club rooms in the Medical Arts Building, on the above date. Dr. Laurin showed his motion picture of pyorrhea treatment by the electro-coagulation method and commented upon the duties of the nurse with reference to her assistance during the doctor's treatment of these cases.

Miss Starr was in the chair and after the meeting all were invited to remain to enjoy an Easter party.

Mount Royal Dental Society

The Annual Meeting of the Mount Royal Dental Society was held on April 8, 1938, in the Mount Royal Hotel. The guest speaker at the afternoon and evening clinics was Dr. Samuel Bass of New York City.

The session began in the afternoon when Dr. Bass addressed a record attendance of the Society on "The Dentist's Role in Building His Practice." Among the interesting items covered by the speaker were:

1. Fundamentals for a sound foundation upon which to build one's practice.

2. Why patients select a particular individual as their dentist.

3. Coping with every-day problems in practice, e. g. contracting for services, collecting accounts, recall systems, indigent patients, etc.

4. The child as a practice builder.

5. Suggestions for increasing the size and scope of practice and eliminating leakage in income.

During the evening period, Dr. Bass elaborated on his afternoon talk and offered for display a number of interesting models, pictures and casts.

The period of time between sessions was devoted to the business of the Annual Meeting. After an enjoyable dinner the election of officers for the year 1938-39 took place. The following were elected:

President, Dr. G. Franklin; Vice-President, Dr. J. R. Persk; Secretary, Dr. P. J. Gitnick; Treasurer, Dr. C. I. Finkelstein; Ass. Sec. Treas., Dr. S. Hershon; Librarian, Dr. A. L. Scherzer.

Executive Committee: Dr. S. Cripps, L. J. Rosen, F. Mendel, D. Muhlstock and I. Pesner.

At the close of the meeting Dr. G. Franklin thanked Dr. Bass for his interesting and enlightening address.

Released From Prison Term

An hour after his incarceration, Valmore Jolicoeur, of Quebec, convicted of illegally practising dentistry, was liberated from a six months prison term by a Royal prerogative issued by Premier Maurice Duplessis, acting in his capacity as Attorney-General of the province.

Justice Alfred Savard in Superior Court, sentenced Jolicoeur to six months in prison or an option of a fine of \$50 with costs, for having practised dentistry without a certificate of competence which certificates are only issued by the College of Dental Surgery of the Province of Quebec.—*Quebec Chronicle-Telegraph*.

NEW BRUNSWICK:

Dental Convention

The 43rd Annual Mid-summer Meeting of the New Brunswick Dental Society will be held in Fredericton, July 4 to 6.

Prominent clinicians from the United States and Canada will participate including the following:—

Dr. Wright—Pittsburg, Pa.—Partial Dentures.

Dr. Charles H. M. Williams—Toronto—Periodontia.

Dr. Maurice Peters—Boston, Mass.—Office Management.

Dr. Walter Irvine — Boston, Mass.—Amalgams.

The following are the Convention Committee Chairmen:—

A. W. G. Good—Clinics.

G. R. Lister—Finance.

R. P. Long—Contingencies.

R. M. MacGibbon—Property.

J. C. S. McMullin—Publicity.

F. L. Miller—Programs.

B. R. Ross—Exhibits.

P. G. Thompson—Entertainment.

E. M. Wilson—Registration.

NOVA SCOTIA:

Pictou Dental Clinic

The local council of women at its monthly meeting held April 18 decided to sponsor a movement to provide dental care for underprivileged school children. It was suggested that \$300 would be required to operate the dental clinic for a year. The local dentists are willing to co-operate and will give their time without remuneration to the clinics. It is stated that out of 350 children in the central school, 270 need dental care and 40 per cent of these are unable to pay for it.—*New Glasgow News*.

EMPIRE NEWS

GREAT BRITAIN:

Dental Health in Glasgow

"The state of the teeth of the citizens of Glasgow is appalling," said Dr. J. Forbes Webster, Dean of the Glasgow Dental Hospital and School, yesterday, in a lecture under the auspices of the City of Glasgow Society of Social Service.

Dr. Webster, whose subject was "Teeth and Health", said that about 80 per cent. of the citizens of Glasgow had bad teeth, and the percentage among school children was probably greater. It was all very well for people to say they could get artificial teeth, but artificial teeth would not serve them as well as their own teeth.

Commenting on the fact that millions of pounds were to be spent on a physical fitness campaign, Dr. Webster asked what use the campaign was going to be if the teeth of the people were in a bad condition.

"It has been computed," he added, "that if you take saliva from the mouth of a person with bad teeth and take an equal amount of sewage you will find there are more germs in the saliva than in the sewage."

The mouth was the gateway to health and should always be kept clean, and if people took proper care of their teeth there was no reason why they should lose them. The true cause of decay of the teeth had not yet been discovered, but diet seemed to be mostly

responsible.—*The Glasgow Herald*, April 9, 1938.

AUSTRALIA:

Pre-School Dental Clinic in Melbourne

Recently a pre-school dental clinic was opened at the Melbourne Dental Hospital by the Minister of Education and Health. After operating for ten weeks, 1,100 treatments had been given to children between the ages of 2 and 6 years. When the patients reach school age they pass on to the Dental Clinic of the Education Department. Representations had previously been made to the Government to do something for the dental care of children who had not yet reached the school age, and the Minister had called a conference. As a result, a scheme had been evolved, and the clinic was the practical outcome. A grant of £1,500 had been made by the Victorian Gov-

ernment towards the cost of establishing the clinic. As the Minister remarked, there is a duty to provide dental treatment for children of parents unable to pay. At the same time, it would be pampering the community too much if the State were to provide free dental treatment for everybody.

The staff of the new clinic comprises a superintendent, two dental surgeons, a sister in charge, and a junior nurse. Everything has been done to eliminate the feelings of dread and humiliation that children so often associate with dental attention. The walls of the waiting-room, surgery and rest-room are a restful shade of pale green, with murals depicting familiar nursery rhyme characters. On the floors are designs to tempt the little patients to play snakes-and-ladders and similar time and fear-beguiling childish games. Fees are on a sliding scale.—"*Oral Topics*," per *New Zealand Dental Journal*.

GENERAL NEWS

Socialized Dentistry Scored at Convention

Scoring moves toward socialization of dentistry in this country, Dr. C. Willard Camalier of Washington, president of the American Dental Association, last night stressed the importance of a nation-wide preventive dental machine "which eventually will run so smoothly and efficiently that the profession may say to society, 'we are fulfilling our obligation and warrant the trust you have placed in us'."

Dr. Camalier spoke at the concluding session of the annual three-day convention of the University of Buffalo Dental Alumni Association.

"The American Dental Association feels that the practical problem of the profession lies with the children of the nation," Dr. Camalier said. "If effective means, particularly through education, are established, there will be no need for outside agencies attempting to take from the profession its right of control over the dental ills of the citizens of the country."

OUTLINES GROUP'S PLANS

Outlining the American Dental Association's plans in the field of preventive dentistry, Dr. Camalier suggested that various parental groups be reached through the health department, women's clubs, parent-teacher associations, nurses' associations and the private office.

He advocated a practical dental program for children in the communities, "providing dental examinations for all elementary children and a definite educational follow-up." He remarked that dental examinations are essential for statistical purposes, but "unless followed by a good educational program, they are ineffective."

"To save time and public expense," he said, "the school authorities should insist that children be examined by the family dentist and bring a statement to the teacher from the dentists regarding their dental condition."

"This method will provide most children with an annual examination at no public expense. Children whose parents are unable to provide them the services of a private dentist

dentist be examined by the school or volunteer dentist.

"From 25 to 75 per cent. of the school dentist's examination work will be eliminated by this plan, which will permit many more examinations being made. Furthermore, it will send more children to private dental offices, where the best type of examination can be made. All examinations should be made for the prevention of defects, not merely for the finding of cavities."

As a means towards a broader national program, Dr. Camalier suggested that "every teacher, college student and student nurse should receive a course in dental health education."

"State and component dental societies," he added, "are urged to co-operate with other organizations which are interested in child health. Dental members could be appointed to examine the teeth of and furnish educational material to the members of such organization and the 4-H clubs, Boy Scouts, Camp Fire Girls and Boys' clubs.—*From: Buffalo, N.Y., Cour., Feb. 26, 1938. (A.D.A. News Release Service.)*

■ **Mail Order Dentures**

A number of complaints have been received by Dr. J. Stanley Bagnall, the secretary of the Canadian Dental Association, with regard to mail order dentures coming into Canada from Chicago. On behalf of the Association, Dr. Bagnall has forwarded a number of communications to Ottawa relative to this problem, and it is hoped that the matter will be cleared up in the near future.

Dr. Bagnall would welcome any information re this practice from any dentist who has found this problem in his community. Address the secretary at 78 Larch Street, Halifax.

■ **A Busy Office**

During late November and early December about 100,000 school children of Detroit, Michigan, were examined. This means that the Dental Aid Commission has been busy clearing patients through its office. The month of December brought 535 applicants for dental care. Some of these were able to pay part fees and were referred to the family

dentists as were also those who were on welfare. The funds allotted by the F.E.R.A. for care of persons on welfare were entirely used during the month.

Some of the applicants were unemployed factory workers. Arrangements were made to care for these with their family or a co-operating dentist. Emergency relief was given that will be followed by additional care when re-employment is obtained.

One factory worker with a family of five children presented a problem of 32 operations and \$20.00 available with which to pay. One of our co-operating members cared for this family. The dentist has ministered to the wellbeing of this family and incidentally made friends for organized dentistry and himself.

Another worker was given emergency relief and then, through the Medical Finance Bureau was given restorations to the value of \$90.00. By the use of this plan the dentist receives \$81.00, 10% being retained by the Bureau for operating costs.

Eight persons who were able to pay full fees called at the Commission office during December for references to dentists. In each instance they were given the names of three or four of our members.

From the period beginning January 1, 1937, to December 31, 1937, 2,415 dental cases and 820 medical cases were cleared through the office of the Commission.—*From Detroit Dental Bulletin, February, 1938. (A.D.A. Press Release Service.)*

• **First Annual Summer Postgraduate Course in Fixed Bridge Work**

New York University College of Dentistry.

New York University College of Dentistry will offer its first annual postgraduate course in Fixed Bridge Construction, for four weeks, mornings only, beginning June 27, 1938, or for two weeks, full day, beginning July 11. The fee is \$50. The course is limited to fifteen men.

The course will deal primarily with the principle of complete fixation for stabilization of all of our fixed bridge construction, covering the following subject-matter in detail: diagnosis, principle of parallelism, treatment planning, cavity preparation, and pontic con-

struction. The following preparations, performed first on ivory teeth and then on clinic patients, will be stressed: pit-veneer, aesthetic anterior three-quarter crown, posterior three-quarter crown, slice-lock, a typical posterior three-quarter crown, full cast crown. Several hours will be spent in perfecting the direct waxing technique. The following aspects of clinical procedure will be taught: full mouth sectional compound impressions, equilibration of occlusion, polishing of bridges, sterilization of abutment teeth, and the final cementation of the completed work. The teaching will be conducted by lectures, associated with slides and motion pictures, each student constructing several cases.

Instruction will be by Associate Professor Herbert H. Kabnick and the entire Crown and Bridge Department faculty, supplemented by special lectures by Professor A. L. Greenfield and Associate Professor S. Charles Miller. For information and application blank, address the Crown and Bridge Department, New York University College of Dentistry, 209 East 23rd Street, New York, New York.

Plan Pushed by Doctors

HASTE URGED ON MEDICAL INSURANCE PROPOSALS

The Westchester County Medical Society last night forwarded a recommendation to the State Medical Society that, in view of the success of the Associated Hospital Service plan and of the current promotion of other private insurance plans, "it is more than ever desirable that the State Medical Society prosecute with all possible speed its plan for the eventual establishment of a program of voluntary non-profit medical expense insurance for persons in the lower-income groups, and operated under the four basic principles which have been stated and adopted by this society."

4 PRINCIPLES CITED

The four basic principles referred to were incorporated in a statement adopted by the Westchester County Society in January. It was then declared that organized medicine should favour any program to make medical care more available than at present by improved economic arrangements; that lay

agencies should confine their functions to the non-medical aspects of any plan for such purpose; that the medical aspects of such plan should be absolutely and solely in the hands of the medical profession, and that these two functions should be kept clearly inviolate and the status of the medical profession firmly established by suitable legislation.

Although the Westchester Medical Society has thus endorsed the principle of voluntary non-profit insurance against medical expenses, a spokesman said that the society is more than ever opposed to compulsory health insurance under governmental auspices.—*From Mt. Vernon, N.Y., Augus, March 16, 1938. (A.D.A. News Release Service.)*

Use of The Toothbrush

One of the latest statistical studies in toothbrushing was made in the Netherlands by Dr. J. Bol.* He examined with scrupulous care three groups of men, all between nineteen and twenty-nine years of age. Group 1 of 103 men had never used a toothbrush or toothpaste. Group 2 of 130 men had used brush and paste since childhood, or at least since fourteen years of age, and Group 3 of 98 men brushed their teeth, but had started to do so later in life than the fourteenth year. Group 1 had 21.5 sound teeth per mouth; Group 2, 20.9; and Group 3, 21.6. "These figures," writes Doctor Bol, "show that mouth hygiene, as practised by these men is, to say the least, ineffective in preventing caries." It is no discovery that toothbrushing may do no good. Dentists know that the wrong kind of brushing from side to side or with harsh abrasives, may do definite harm.

—*From Journal School Health, Feb., 1938. (A.D.A. News Release Service.)*

* Health News, State Department of Health, New York, December 20, 1937, p. 208.

Survey Shows 1 in 5 Never Visit Dentist

Studies by the Public Health Service have revealed that 4.4 per cent. of the grown persons in white families headed by a professional individual had never visited a dentist, while almost four times as many, 16.3 per

cent., in families of unskilled workers, had never been inside a dental office.

Nevertheless, the Health Service asserted that the admonition, "see your dentist once a year", had been obeyed by more than 42 per cent. of a city's professional population and by 16 per cent. of its unskilled workers.

The study, a supplemental effort of the National Health Survey, aided by grants from

the WPA., covered white persons of three years old and upward.

The proportion by age of those who had never seen a dentist varied from 85 per cent. in the age group 3-5 years, to 8 per cent. in the group 25-34 years. For the whole group, 19 per cent. had never seen a dentist.—*From Buffalo, N.Y., Times, March, 1938. (A.D.A. News Release Service.)*

AMERICAN DENTAL ASSOCIATION

St. Louis, Missouri

October 24 - 28, 1938

HOTEL RESERVATIONS

To secure hotel accommodations for the 1938 Session, consult the rate list below and apply immediately to the hotel of your first choice or to the Housing Committee, Room 108, Hotel Statler, St. Louis, Missouri. Confirmation will be sent to you by the hotel.

Second and third choices of hotel should be indicated. If the reservation cannot be made at any of the hotels of your choice, the Housing Committee will place you in as favourable a hotel as possible and will notify you.

Please remember that a reservation constitutes a contract with the hotel to provide you with the accommodations you desire. If you find it impossible to carry out your part of the contract, namely, to occupy the room at the time agreed upon, please write or wire the hotel releasing the room, in order that it may be available for other members.

SCHEDULE OF RATES	ALL ROOMS WITH BATH*		
	Single	Double	Twin Beds
AMERICAN, 6 North 7th St.....	\$2.50	\$4	\$5
AUDITORIUM, 1803 Pine St.....	\$2.50	\$3.50	\$4.50
BILTMORE, 3643 Washington Blvd.....	\$1.50	\$2.50	\$3
CHASE, 212 N. Kingshighway Blvd.....	\$2.50-\$3-\$3.50-\$4	\$4-\$5-\$6	\$5-\$6
	Apartments (1 persons), \$12		
CLARIDGE, 18th and Locust St.....	\$2-\$2.50-\$3	\$4-\$4.50-\$5	\$4-\$4.50-\$5-\$6
CONGRESS, 275 N. Union Blvd.....			\$6
DE SOTO, 1014 Locust St.....	\$2-\$2.50-\$3	\$3-\$3.50-\$4	\$3.50-\$4-\$5-\$6
CORONADO, 3701 Lindell Blvd.....	\$2.50-\$3-\$3.50	\$3.50-\$4-\$4.50	\$4-\$4.50-\$5
	\$4-\$4.50-\$5-\$6	\$5-\$6	\$5.50-\$6-\$7
	Parlors (wall beds), \$5 single; \$6 double		
	2 Room Suites (3 persons), \$7.50		
FAIRGROUNDS, 3644 Natural Bridge Blvd.....	\$2-\$2.50	\$3-\$4	
FOREST PARK, 4910 W. Pine Blvd.....	\$3		\$4-\$6
	Apartments (2-4 persons), \$3 person		
GATESWORTH, 245 Union Blvd.....	\$3	\$4	\$5
	Suites (4 persons), \$8		
JEFFERSON, 415 North 12th Blvd.....	\$3-\$3.50-\$4	\$4-\$4.50-\$5-\$5.50	\$5-\$6-\$7
	\$4.50-\$5-\$5.50	\$6-\$7-\$7.50	\$7.50-\$8
	Suites (single), \$6-\$8-\$10-\$17.50		
	Suites (double), \$8-\$12-\$19.50		
KINGS-WAY, 108 N. Kingshighway Blvd.....	\$2-\$2.50-\$3-\$3.50	\$3-\$3.50-\$4	\$4-\$5-\$6
	Suites, \$5-\$6-\$7-\$8		
LENNOX, 825 Washington Ave.....	\$3-\$3.50-\$4	\$4.50-\$5-\$5.50-\$6	\$5-\$5.50-\$6-\$6.50-\$7
MAJESTIC, 200 North 11th St.....	\$3	\$4-\$5	\$6
MARK TWAIN, 116 North 8th St.....	\$2	\$3.50-\$4-\$4.50	\$4.50-\$5-\$5.50
MARQUETTE, 18th and Washington Blvd.....		\$3	\$4
MARYLAND, 205 North 9th St.....	\$2.50	\$3.50-\$4	\$4-\$4.50
MAYFAIR, 8th and St. Charles St.....	\$1	\$4.50-\$5-\$5.50	\$5.50-\$6.50
		\$6-\$6.50-\$7	
MELBOURNE, 3601 Lindell Blvd.....	\$2.50-\$3-\$3.50-\$4	\$4-\$4.50-\$5-\$6	\$4.50-\$5-\$6-\$7
PARKEDGE, 4907 W. Pine Blvd.....		\$4.50	\$6
PARK PLAZA, 220 N. Kingshighway Blvd.....		\$5	\$6
ROOSEVELT, 4901 Delmar Blvd.....		\$3 (shower only)	
STATLER, 9th and Washington Blvd.....	\$2.50-\$3-\$3.50	\$4.50-\$5-\$6	\$5-\$6-\$6.50
	\$4-\$4.50-\$5	\$6.50-\$7	\$7-\$8-\$9
	Parlor (wall bed) \$7 single; \$9 double		
	Parlor Suites (2 or 4), \$15-\$22		
WARWICK, 1428 Locust St.....	\$2-\$2.50-\$3	\$3.50-\$4-\$4.50-\$5	\$4-\$5-\$6
YORK, 8 South 6th St.....	\$2-\$2.50	\$3.50-\$4	\$4.50

*Extra Cot, \$1.00.

*Rates on rooms without bath on request.

Of what avail is it to a dentist to perfect himself in his work, if in so doing he entirely loses contact with the world socially? Why make better and better dentures for fewer and fewer patients?—Jacob L. Chivian in Essex County D. Soc. Bul.

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

Alfred Frederick Webster of Toronto, Ontario aged 72, died May 7 at his residence. He received his degree from the University of Michigan and subsequently at the Royal College of Dental Surgeons, Toronto, and successfully practised his profession in the latter city until about two years ago when failing health intervened.

His career was one of most active in the history of Masonry in Canada. For 45 years his Masonic activities were extensive. He was elected to high offices in the Grand Lodge of Canada, the Grand Chapter of Canada, the Royal Order of Scotland, and in all bodies of the Scottish Rite. For 9 years he was the supreme head of all Scottish Rite bodies having jurisdiction throughout the Dominion. During his occupancy of this office, Dr. Webster travelled extensively in Europe and the United States to represent Canada at various Masonic conferences.

Dr. Webster was an Anglican and for many years a member of St. Paul's Church, in which the funeral services were held. Bishop R. J. Renison, rector, who officiated, was assisted by Most Rev. D. T. Owen, Archbishop of Toronto and Primate of all Canada, and Dr. H. J. Cody, President of the University of Toronto.

A guard of honour comprised of men who had been actively associated with Dr. Webster in his many activities accompanied the funeral to the Necropolis where interment was made.

Dr. Webster is survived by his widow, one daughter and two sons, also by two granddaughters.

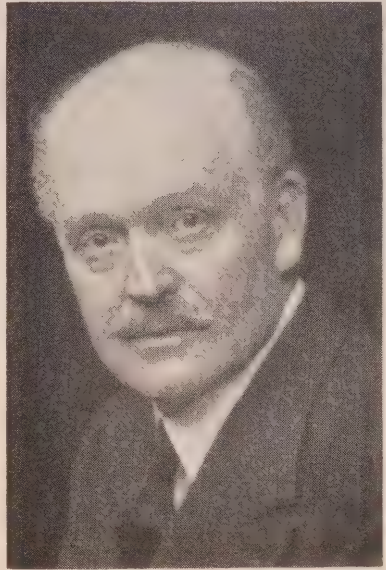
•

William Slocum Davenport of Paris, France, aged 69, died early this year.

Born in the State of New York, William Davenport, after having obtained his degree at the University of Pennsylvania in 1890, came over to Paris to join his brother and continued to reside in that city for nearly

fifty years, and was one of the guiding spirits of American Dentistry in Europe.

His ever original ideas are spread over numerous articles published in the Dental Cosmos, The International Dental Journal and many French and foreign periodicals. He contributed also to Dr. Guildford's book on orthodontia and to Dr. George Rousel's treatise on crown and bridgework.



Numerous scientific societies opened their doors to him and in particular the American College of Dentists and the New York Academy of Dentistry. He was President of the American Dental Society of Europe in 1914 just before the outbreak of the world war and had been President of the American Dental Club of Paris of which he had been a Founder in 1890 and since then one of its most active and appreciated members.

From the early days of this century,

when dental hygiene in the schools was non-existent, he organized and operated a dental clinic for the poor children of the Rue de Charonne quarter.

Later he was in a great part responsible for the realization of the Eastman Dental Institute, inaugurated last autumn in Paris. During the war he gave of his services to the face and jaw cases. For these many eminent services, the French Government presented him with the Commemorative War Medal and created him a Knight of the Légion of Honour. A few years ago he was further promoted to the rank of officer in France's National Order.

William Davenport was also a great artist. A pupil of the famous American painter Whistler, he held an important exhibition of his works of art in 1926.

In Paris where he leaves behind him the "souvenir" of an eminent practitioner and of a beloved master, his disciples and legion of friends desire to express to his widow, to his son Doctor William S. Davenport and to his family, their sentiments of profound sympathy.

•

W. H. Dolamore of London, England, aged 74, died April 19. He was president of the British Dental Association from 1915 to 1918. He was a member of the staff of the Royal Dental Hospital for more than thirty years. He was elected F.R.C.S. in 1933.

The right of dentistry to be acknowledged as one of the learned professions in Great Britain was largely due to Mr. Dolamore's efforts.

•

Charles Edwin Truman of London, England, aged 88, died April 14. He obtained his B. A. in 1871, his M. A. in 1874 and his M.R.C.S. in 1875. He then studied Dentistry at the Dental Hospital in Leicester Square, becoming L.D.S. in 1881 and soon afterwards was appointed to the staff.

For more than thirty years Mr. Truman was surgeon-dentist to the King's Household.

Charles Lane of Detroit, aged 53, died of pneumonia on April 28. He was born in Goderich, Ontario and graduated from the Royal College of Dental Surgeons in 1906. Twenty years ago Dr. Lane began private practice in Detroit. In 1934 he became head of the University of Detroit Dental School. He was a member of the Harper Hospital Staff, the Council of the Michigan State Dental Society, the Detroit Clinic Club; Past-President of the Detroit Dental Society and the National Society of Prosthetics and a former Vice-President of the American Dental Association.

Dr. Lane was very popular among Canadian dentists, particularly those of western Ontario and was a booster for the Journal of the Canadian Dental Association from its inception.

The London Dental Society was represented at the funeral by Dr. J. F. Blair.

•

Alfred C. Fones, of Bridgeport, Conn., U.S.A., aged 69, died suddenly March 15. He was an outstanding American dentist being the winner of the Fauchard Medal, the William Jarvie Fellowship Medal and the Jewell Sill Jenkins Memorial Medal.

Dr. Fones was active in educational work, was one of the founders of the Junior College of Connecticut, was the originator of the modern dental hygienist movement and through his efforts the first dental hygienists' laws were passed.

•

George Villain, of Paris, France, aged 56, was instantly killed in an automobile accident April 22. His two sons, his daughter-in-law and his sister-in-law were also killed. Madame Villain escaped with head injuries and is expected to recover.

Doctor Villain was one of the most distinguished, most beloved and most important figures in French dentistry.

Mr. A. E. Rowlett represented the British Dental Association at the funeral service.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAudeau, D.D.S., A.I.D.O.,

Professeur à l'Université de Montréal

516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.

Paul Geoffrion, D.D.S., A.I.D.O.

P. E. Lussier, D.D.S.

P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.

Yves Laffleur, D.D.S.

A. D. Milot, D.D.S.

Jules Tétrault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,

Lauréat de l'Académie et de la Faculté de
Médecine de Paris.

Stomatologiste des Hôpitaux de Paris.

6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,

Président du Quatrième Congrès Dentaire
National Belge.

3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,

Président de l'Association Générale Syndicale
des Dentistes de France.

45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,

Médecin-dentiste.

33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,

Doyen de l'Ecole Dentaire

Port-au-Prince, Haïti.

Pont Dentaire dans l'Oesophage Expulse par les Voies Naturelles *

par J. N. ROY, F.A.C.S.,

*Professeur à l'Université de Montréal, Chef de service à l'hôpital Notre-Dame, Lauréat de
l'Académie de Médecine de Paris.*

IL EST généralement instructif de lire une observation de corps étranger des bronches ou de l'oesophage, enlevé sous broncho-oesophagoscopie directe. Dans plusieurs occasions, en effet, certains de ces corps étrangers se rencontrent très rarement dans ces cavités, ou encore présentent une difficulté spéciale lors de leur ablation. Mais il peut être encore plus intéressant de relater un échec d'extraction motivé par des circonstances particulières,—telle l'histoire suivante.

Observation.—Le 26 fév. 1938 nous

sommes appelé à l'hôpital Notre-Dame pour M.J.L., âgé de 37 ans, qui avait une prothèse dentaire dans l'oesophage. Le patient raconte que l'après-midi du même jour il se faisait enlever un pont au maxillaire inférieur du côté droit. Son dentiste pour l'ablation, dut couper partiellement les deux couronnes internes de support, qui retenaient ce pont sur les dents piles. Il se servit ensuite d'un levier, et pendant sa mobilisation, la prothèse fut projetée sur la langue et déglutée. Après cet accident le malade eut une sensation de corps

(*) Communication faite à la Société de Broncho-Oesophagoscopie de Langue française, Bordeaux, 2 juin 1938.

étranger dans la région cervicale, accompagnée d'une vive douleur lorsqu'il avalait.

Le dentiste, présent à l'examen et à l'intervention, nous explique que ce vieux pont en or étant usé, devait être remplacé. Il avait été fait pour combler l'espace produit au maxillaire inférieur, à droite, par l'extraction de la première molaire. Il se trouvait en conséquence à recouvrir la seconde pré-molaire et la deuxième molaire, et ce furent ces deux supports du pont qui durent être sectionnés pour faciliter son enlèvement.

Le rhino-pharynx ne présente rien d'anormal.

La radiographie permet de localiser le corps étranger dans la région inter-claviculaire.

Nous proposons une oesophagoscopie qui est immédiatement acceptée.

Opération.—Anesthésie locale à la cocaïne au dixième, en prenant soin de ne pas faire de pression sur le corps étranger. Après insensibilité de la muqueuse le malade est couché. Nous passons ensuite un tube de Chevalier Jackson de 45 c m de longueur sur 8 m m de diamètre. Le pont dentaire nous apparaît à 4 c m environ de la bouche oesophagienne. Ayant introduit une pince nous saisissons le corps étranger, et le mobilisons légèrement. Toutefois nous rencontrons de la résistance, et l'instrument glisse sur le métal humide et très poli. Pendant une seconde oesophagoscopie nous faisons subir à ce corps étranger une certaine rotation, et le déplaçons un peu. Après cette manoeuvre nous nous heurtons au même obstacle, et la pince glisse de nouveau. Enfin un troisième passage du tube jusqu'au cardia permet de se rendre compte qu'à la suite d'un spasme oesophagien, ce pont dentaire est descendu dans l'estomac.

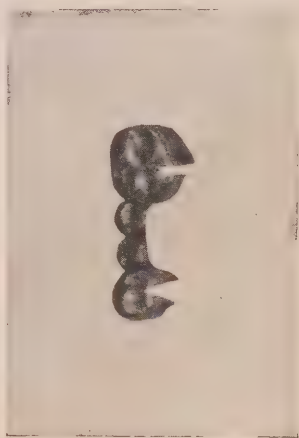
Une seconde radiographie confirme ce fait.

Nous prescrivons une diète appropriée composée surtout de purées de légumes.

Au bout de trente heures le corps étranger cheminait dans l'intestin, et était rejeté sans complications par les voies naturelles, trois jours après l'accident.

Il mesure 29 m m de longueur, sur 14 m m dans son plus grand diamètre. Son poids est de 5 gr .07.

Cette pièce représente un pont fixe servant à remplacer la première molaire du maxillaire inférieur gauche. Le pont tout en or se compose de deux couronnes de support, et de deux petites dents postiches. L'ensemble de la pièce est bien soudé, ce qui la rend solide. Pour faciliter l'ablation de ce pont, le dentiste a sectionné les deux couronnes en or à leur partie linguale, et les a ensuite ouvertes assez largement à leur bord gingival du même côté. Ces ouvertures inférieures des couronnes ont produit conséquemment quatre pointes fort aiguës dirigées en dehors. (Voir photographie).



Pont dentaire grandeur naturelle.

Durant la première semaine le malade eut un peu de malaise à la déglutition, mais dans la suite tout revint à la normale.

Voyons maintenant pourquoi ce pont

dentaire n'a pu être enlevé sous oesophagoscopie, après deux tentatives d'extraction. Tout d'abord nous dirons que si les couronnes n'avaient pas été coupées avant l'ablation de la prothèse, celle-ci, lors de l'accident, serait descendue directement dans l'estomac. En effet, cette pièce en or parfaitement régulière et dépourvue d'aspérités, n'avait que 14 m m dans son plus grand diamètre. De plus son poids de 5 gr .07 était encore de nature à favoriser son passage dans le tube oesophagien, le malade étant assis au moment de la déglutition. L'échec que nous avons eu s'explique tout simplement par le fait que les deux couronnes de support avaient été sectionnées. Il existait donc à la suite de cette section quatre pointes métalliques très acérées, offrant un réel danger durant les manœuvres endoscopiques. Après avoir saisi et mobilisé par deux fois le corps étranger, nous avons rencontré de la résistance, et la pince a glissé ensuite sur le métal. Conséquemment nous devons admettre que les aspérités des couronnes de support incisées pénétraient dans la paroi oesophagienne pendant nos vaines tentatives d'ablation. De plus il faut ne pas oublier que ces couronnes étaient humides, et que celle saisie par notre instrument de préhension offrait une surface très lisse.

En présence d'un cas semblable si la pince est particulièrement solide, et surtout la main de l'opérateur trop dure lors de l'extraction du corps étranger, il y a à craindre des suites plus ou moins graves, et même désastreuses. L'oesophage peut être lésé dans ses deux couches internes,—ou déchiré en profondeur, ce qui amènerait ensuite dans ce dernier cas une périoesophagite, et tout probablement une médiastinite suppurée toujours mortelle.

Nous savons tous que la moindre blessure de la muqueuse oesophagienne, même produite par la piqure d'un tout petit corps étranger,—telle l'observation rapportée dans un de nos travaux men-

tionnés dans notre bibliographie personnelle—peut s'infecter, et se terminer par un phlegmon. Ce phlegmon naturellement doit être incisé au moment opportun sous le contrôle de l'oesophagoscope.

Si maintenant nous supposons qu'après plusieurs tentatives prudentes d'ablation de ce pont dentaire,—ou de tout autre corps étranger—les manœuvres alternées de traction, de refoulement ou de rotation restent sans résultat, il faut recourir ensuite à l'oesophagotomie externe. Toutefois nous dirons que cette opération se pratique très rarement de nos jours, étant donné la perfection de notre instrumentation, et la dextérité manuelle plus grande des médecins spécialisés en endoscopie. Chevalier Jackson est d'opinion que 99% de tous les corps étrangers de l'oesophage peuvent être enlevés sous oesophagoscopie directe.

Le pont dentaire de notre malade étant descendu spontanément dans l'estomac à la suite d'un spasme, nous n'avons eu aucun doute quant à son expulsion par les voies naturelles. Tout de même des purées de légumes furent prescrites pour l'englober et faciliter son passage dans l'intestin. En terminant nous rappellerons que dans ces cas, il ne faut jamais donner de purgatifs.

BIBLIOGRAPHIE DE L'AUTEUR

J. N. Roy.—De la nécessité de l'oesophagoscopie pour le diagnostic et le traitement des affections de l'oesophage. *L'Union Médicale du Canada*, fév. 1919.

— Phlegmon de l'oesophage incisé sous le contrôle de l'oesophagoscope. Guérison. *L'Union Médicale du Canada*, janv. 1920.

— Un cas d'oesophagotomie externe pour corps étranger de l'oesophage. Ablation. Guérison. *Revue hebdomadaire de Laryngologie, d'Otologie et de Rhinologie*, nov. 1920.

— Épingle de sûreté ouverte pointe en haut, dans l'oesophage d'un nourrisson. Oesophagoscopie. Ablation. *L'Union Médicale du Canada*, sept. 1922.

— Second cas d'épingle de sûreté ouverte pointe en haut, dans l'oesophage d'un nourrisson. Oesophagoscopie. Ablation. *Archives Internationales de Laryngologie*,

Otologie, Rhinologie et Broncho-Oesophagoscopie, avril 1927.

— Epingle de sûreté ouverte dans l'estomac d'un enfant. Passage par les voies naturelles. *Les Annales d'Oto-Laryngologie*, sept. 1933.

— Epingle de sûreté ouverte dans l'estomac remontant à l'oesophage. Oesophagoscopie. Ablation. *Bronchoskopie, Oesophagoscopie et Gastroscopie*, janv. 1934.

— Prothèse dentaire retirée de l'oesophage avec l'oesophagoscope. *Bronchoskopie, Oesophagoscopie et Gastroscopie*, juillet 1934.

— Quelques aspects des maladies de l'oesophage sous le contrôle de l'oesophagoscope, et rapides considérations sur leur traitement. *Bulletin de Laryngo-Broncho-Oesophagoscopie*, janv. 1936.

“Conserver la Pulpe Vivante”

IL ME semble que nous ne reviendrons jamais trop souvent sur ce problème d'importance capitale. Les conséquences innombrables qui peuvent découler d'une erreur de traitement de la pulpe ou des racines sont telles qu'aucun praticien n'a le droit de s'en désintéresser.

Il semble bien que l'on en soit à une époque quasi décisive de l'histoire de ces traitements et il se pourrait bien que l'on s'achemine vers une compréhension beaucoup plus logique de nos devoirs en cette matière. En effet la pulpe est un organe essentiel à la dent et la conserver vivante est certainement la meilleure manière d'éviter les complications pathologiques. En outre c'est un organe comme un autre et il est logique de croire qu'il peut pourvoir à sa propre défense voire même à sa récupération, pourvu toutefois que l'on n'aille pas lui nuire s'il vit bien ou qu'on l'aide à récupérer s'il est atteint déjà.

On peut donc opérer sur une pulpe comme sur tout autre organe à condition que pour ce faire on prenne toutes les précautions que la grande chirurgie impose au chirurgien.

Le professeur W. Hess, directeur de l'Institut dentaire de Zurich, a fait de ce sujet une étude des plus sérieuses qu'il a présentée au Congrès Dentaire National, Paris, juillet 1937. Cette étude fort intéressante a été publiée dans l'Odonto-

logie de décembre de la même année et voici ce qu'il en dit:

“Si nous rangeons, d'un côté les pulpes saines et hypérémiques, de l'autre les pulpes enflammées et purulentes et les pulpes mortes, que nous pouvons fort bien différencier cliniquement et traiter différemment, nous pouvons de cette manière éviter bien des fautes dans le traitement.

Il est important, dans la préparation des cavités dans la dentine dure, d'éviter toute lésion de la pulpe, pour garder vivant cet organe terminal vasomoteur important, qui est en même temps l'organe du toucher, de l'orientation et des sensations de la dent. Nous nous efforcerons donc, dans les cas de carie très profonde, de conserver la pulpe vivante, en ayant recours au coiffage direct ou indirect. Cette méthode est tout à fait indiquée et d'une application indispensable pour les dents des adolescents dont les racines n'ont pas achevé leur croissance ou pour les dents de lait qui subiront la résorption des racines.

L'époque qui a précédé celle des antiseptiques est caractérisée par des travaux empiriques, des recherches désordonnées de substances qui permettaient de conserver des pulpes saines ou malades sans enlever la dentine cariée. On pratiquait sans distinction des coiffages sur pulpes saines ou enflammées.

L'époque antiseptique est de nouveau

liée au nom de A. Witzel qui a introduit dans l'art dentaire la méthode du traitement antiseptique des plaies, lancée en médecine par Lister. A cette époque et jusqu'en 1920, on a tenté avec des solutions antiseptiques fortement concentrées de stériliser la dentine subsistante ou même d'agir sur la pulpe. Une différenciation stricte des formes de maladies de la pulpe était déterminée, mais malgré cela on procédait indifféremment à des coiffages sur pulpites aiguës ou chroniques. Il y avait déjà à cette époque des auteurs qui refusaient de reconnaître comme justifié le coiffage des pulpes enflammées. Mais, en général, on admettait une guérison de la pulpe quand le patient ne se présentait plus pour achever le traitement. Les auteurs tels que Boenneken, Walkhoff, Baume, Szabo, Preiswerk, Dendorff, Best, Howe, Roy, de Trey ont travaillé ce problème, mais n'ont jamais contrôlé les cas traités.

C'est dans la période récente que nous pouvons appeler la phase expérimentale du coiffage pulpaire, que se sont affirmées de nouvelles méthodes. On étudia plus sérieusement les principes anatomiques et physiologiques, en mettant au premier plan, les facteurs biologiques; on prit en considération l'âge, la constitution et les dispositions du patient. A la place de fortes solutions et de pâtes antiseptiques, on eut recours à des médicaments aussi inoffensifs que possible pour les tissus et désinfectant la dentine cariée sans dommage pour la pulpe. Un contrôle précis des cas traités par le courant induit et la thermométrie, spécialement par l'examen pathohistologique de la pulpe, a éclairci expérimentalement les principes scientifiques du traitement conservateur des pulpes. Gysi, Roemer, Daetwyler, Rebel, Walkhoff, Okino, Schilling, Howe, Hofmann ont contribué largement à mettre les procédés en valeur.

Nous pouvons affirmer aujourd'hui que dans une thérapeutique opportune par

l'emploi judicieux de l'oxyde de zinc eugénol, du nitrate d'argent, du xylol pour le durcissement de la dentine, l'hydrate de chloral 80%, éventuellement le Tiralal, le coiffage indirect de la pulpe, quand il s'agit de pulpe non hyperhémique ou non enflammée, ne connaît pas d'insuccès.

Le coiffage indirect de la pulpe présente des résultats positifs au point de vue clinique, résultats qui furent toujours confirmés par un contrôle ultérieur clinique et histologique; par contre le coiffage direct de la pulpe mise à nu présente de grosses difficultés. Déjà Witzel était opposé au coiffage de la pulpe enflammée. Pour le coiffage direct, on eut également recours, au début, aux solutions et aux pâtes fortement antiseptiques, et on les utilisait également pour les pulpes enflammées; plus tard on rechercha plus spécialement des médicaments qui n'avaient aucune action caustique ou nécrotique et qui augmentaient et renforçaient l'énergie vitale du tissu pulpaire.

Fischer, Roemer, Hentze, Preiswerk, Sachs; Rose, Miller, Roy ont contribué par leurs travaux à mettre de la lumière dans le problème. L'indication pour le coiffage direct était réservée strictement aux pulpes saines n'ayant jamais été enflammées.

Mais ce ne sont que les expériences pratiques qui ont apporté de la clarté sur les possibilités du coiffage direct de la pulpe.

Les contrôles pathohistologiques de coiffage direct entrepris par Daetwyler, Coolidge, Schroder et d'autres ont montré qu'il est très possible chez les jeunes individus de procéder à un coiffage direct de la pulpe, que le résultat est satisfaisant, si l'on a préalablement posé le diagnostic exact de l'indication et que le traitement a été effectué avec le soin nécessaire.

Les derniers travaux sur l'amputation ont spécialement démenti la phrase de Rebel disant: "Chaque pulpe lésée est un organe perdu". Quelques travaux de

ces derniers mois que nous publierons, ont montré que la vitalité des pulpes saines pouvait être maintenue dans 85% des cas, ce qui est élevé, à condition d'éviter toute altération des tissus par les médicaments. ou tout trauma mécanique, et en ayant recours à une substance de coiffage telle que la poudre de dentine du sujet lui-même ou de la dentine étrangère stérilisée. Quelques images vous montreront la marche à suivre dans cette méthode de coiffage et quels sont les résultats à obtenir. Le travail de Hofmann, de l'Institut de Zurich, nous a fourni une démonstration concluante de cette méthode.

Dans mes propres recherches, la question se posait de savoir si une pulpe blessée, mais non infectée, pourrait être maintenue vivante par l'emploi de poudre ou fragments de dentine.

Ici l'auteur nous fait part d'un certain nombre d'expériences pratiquées sur des patients de 11 à 25 ans.

Une première expérience de coiffage pulpaire direct avec de la dentine .60% des dents ainsi traitées montrèrent une oblitération de la perforation de la chambre pulpaire par formation de dentine secondaire et par calcification des fragments de dentine. On pouvait observer une pulpe intacte avec néoformation des odontoblastes en pleine fonction.

15% = cinq dents montrèrent l'oblitération de la perforation et une très légère infiltration de cellules rondes au-dessous et au-dessus du point de calcification.

18% = six dents furent infectées et montraient une inflammation du tissu pulpaire et un encapsulage du foyer par formation d'une membrane d'abcès.

7% = trois dents ne montraient pas de perforation microscopique de la paroi pulpaire, mais une formation distincte de dentine secondaire et une pulpe tout à fait intacte.

Le coiffage direct de la pulpe de dents

saines avec de la dentine a donc donné 82% de bons résultats.

Après avoir ensuite parlé des expériences de G. Fischer, W. Davis de Werz, de Zronfeld, d'Hellener, Prybil, Neuwirt et autres, le professeur Hess en vient à nous parler du Calxyl. Des recherches expérimentales furent entreprises dans les deux dernières années à l'Institut dentaire de Zürich, dont les résultats vous seront donnés. Pour ces expériences, on eut recours à cinquante dents humaines, dont les pulpes étaient encore saines. Les dents furent isolées sous la digue, la carie enlevée avec soin, et avec une fraise stérile, on enleva la pulpe anesthésiée de la chambre pulpaire. On recouvrit les restes pulpaire radiculaires avec un pansement de Calxyl. Dès le deuxième au sixième mois, les pulpes des dents traitées furent examinées histologiquement.

Hermann dans ses recherches avait posé 18 conditions pour qu'un produit fut reconnu comme matériel d'obturation des racines. Il découvrit ensuite le Calxyl qui semble répondre à toutes ces exigences.

Quand Hermann entreprit les premières expériences et les publia dans sa dissertation inaugurale en 1920, le Calxyl se composait à ce moment-là principalement d'hydrate de calcium.

Récemment, on lui a ajouté quelques nouveaux corps, tels que le carbonate acide de sodium, le chlorure de sodium, le chlorure de calcium et le chlorure de potassium, sans que pour cela ses propriétés chimiques soient modifiées; par contre cette préparation devrait être encore améliorée en ce qui concerne sa tolérance par les tissus. L'hydroxyde de calcium est l'oxyde hydrate de calcium, appartenant au groupe des alcalino-terreux.

Les expériences qu'entreprend Hermann, pour prouver que le Calxyl remplissait les dix-huit conditions de son tableau, donnèrent les résultats suivants:

1. Le Calxyl est légèrement soluble dans l'eau froide, moins dans l'eau chaude. C'est une poudre fine, qui par addition d'eau peut donner une pâte épaisse pouvant se dissocier jusqu'à l'obtention d'eau de chaux claire.

2. Les solutions de Calxyl sont faciles à conserver, mais doivent être à l'abri de l'acide carbonique de l'air pour éviter à la surface la formation de carbonate qui n'entre pas en question comme matière à obturation de racine, ne possédant aucun pouvoir antiseptique.

3. Calxyl n'est pas toxique. On ne connaît aucun empoisonnement après déglutition.

4. Quant au pouvoir bactéricide de l'oxyde hydraté de calcium (chaux éteinte), spécialement en ce qui concerne de faibles concentrations, quelques auteurs ont entrepris des recherches sur ses propriétés.

Liborius put détruire des germes de typhus avec cette combinaison dans une solution de 0,0074 % en six heures de temps, de même des germes de choléra dans une solution de 0,0246 %.

Ces données et celles de Pfuhl, Proskau, Citron, etc. . . ., montrent que dans les solutions de 0.02 % à 0,007 %, le Calxyl représente un puissant antiseptique, et possède un pouvoir bactéricide.

Auer, après de nombreuses expériences, arriva à la conclusion: "Que ce n'est pas l'alcalinité de la chaux et les autres alcalins qui produisent l'action antiseptique, vu que d'autres alcalis, d'un degré d'alcalinité semblable, ne présentent pas la même puissance bactéricide, mais qu'il faut chercher le principe actif du calxyl essentiellement dans les ions hydroxyl qui se trouvent en solution. Hermann cherche encore à démontrer, par plusieurs explications théoriques et avec l'appui d'expériences in vitro, que ce calxyl possède un pouvoir bactéricide bien supérieur (quelque mille fois supérieur) à celui de n'importe quelle substance antiseptique

pour obturation de racine, par exemple, la pâte de trikrésol formol de Fischer, et c'est spécialement ce pouvoir désinfectant extraordinaire qui permet de classer le calxyl parmi les désinfectants dits tout à fait biologiques.

5. Une autre propriété comme oxyde de métal est son inaltérabilité.

6. Son action antiseptique qu'Hermann a démontrée dans les gangrènes purulentes et spécialement sa durabilité.

Le Calxyl, conservé sept ans à l'abri de l'air, ne perd aucune de ses propriétés et les gangrènes purulentes de pulpes traitées montraient encore douze mois après, un canal et un apex stériles.

7. Par sa solubilité dans l'eau, ce composé est également facile à introduire dans les racines.

8. Sans irritation sur le périoste ou le périapex, ne provoque ni action mécanique ni gaz ou vapeurs pouvant endommager le périodonte.

10. Aucune porosité.

11. Ne colore pas les dents.

12. Il ne représente pas seulement une défense bactéricide, mais pénètre la paroi par osmose. Son pouvoir de diffusion est celui de l'eau. Calxyl présente des avantages techniques supplémentaires. A savoir:

13. Inoffensif pour la muqueuse buc-

cale. 14. Inoffensif pour les instruments.

15. Inoffensif pour l'opérateur. 16. In-

offensif pour la lingerie et les habits. 17.

Il est inodore, insipide. Contrairement aux expériences précédentes faites avec de la poudre de dentine, le pulpact ou la pâte de Walkhoff, le coiffage avec le calxyl provoquait à la surface de la pulpe amputée l'apparition d'une substance régulière et dure, dont on put discerner différentes formes:

1o Dans le premier groupe, il y a eu formation d'une couche d'odontoblastes, qui a produit une dentine à canalicules de Tomes et a fermé extérieurement la surface pulpaire. La dentine était bien cal-

cifiée, avec odontoblastes bien développées reposant sur une couche non clacifiée de pré dentine. Le reste du tissu pulpaire est tout à fait normal.

2o Dans le deuxième groupe, la pulpe est recouverte à sa surface par un fin dépôt de substance dure. Les odontoblastes sous-jacents n'existaient pas ou du moins étaient réduits dans leur forme. Par contre, le tissu pulpaire présentait une métaplasie et les parois des canaux de fortes résorptions de la dentine par des cellules géantes.

Dans les stades ultérieurs, on constatait une nouvelle couche de substance dure sur la dentine résorbée.

3o Dans ce troisième groupe, cette substance dure fut souvent transformée par le calxyl; autour de ces masses calcaires se formait une couche de dentine sans canalicules. Dans cette substance rude, étaient encapsulés les vaisseaux et les cellules conjonctives, et la pulpe présentait une forte dégénérescence atrophique.

4o Dans un petit nombre de cas, on constata la formation d'une couche de substance dure, recouvrant une pulpe infectée et montrant par le développement de membranes, des abcès encapsulés dans le tissu pulpaire.

Si nous considérons les cas des groupes 1 et 3, qui présentent une pulpe dont la surface s'est recouverte d'une néoformation dure, on peut estimer à 80% le pourcentage de restauration dans l'amputation vitale de la pulpe. Ce pourcentage est minifestement supérieur à celui obtenu par le traitement du pulpatect ou de la

pâte de Walkhoff et des brisures de dentine de Hellner. Cet avantage est certainement dû à la réaction alcaline du calxyl et à son action antiseptique et inoffensive sur les tissus. Toutefois, devant ces résultats, il ne faut pas perdre de vue que ces expériences ont été faites sur des dents saines avec pulpes saines et que dans la pratique on aurait à traiter une beaucoup plus grande quantité de pulpes déjà enflammées ou infectées. Quant à savoir si l'amputation vitale donne, dans ces conditions, les mêmes résultats favorables, cette question doit être encore soumise à de très nombreuses expériences. Cependant le pourcentage des résultats obtenus parle en faveur du maintien de la méthode.

Toutes les expériences que nous avons relatées permettent d'établir avec certitude que, dans un fort pourcentage, le tissu pulpaire peut être conservé sain et sauf, soit par le coiffage pulpaire, soit par l'amputation de la pulpe vivante et que nous avons actuellement des méthodes sur lesquelles nous pouvons nous appuyer. Nous pouvons affirmer que le tissu pulpaire sain ayant subi un traumatisme, présente, soumis à des méthodes appropriées de traitement, une grande capacité de restauration; il est capable en vertu de l'action biologique de certaines combinaisons, par néoformation de substance dure qui histologiquement peut être considérée comme un tissu cicatriciel de produire une "restitutio ad integrum", qui réalise la conservation de vitalité normale de la pulpe.

—Alcide Thibaudéau.

Le Docteur Georges Villain

A la dernière minute nous apprenons le terrible accident de la famille Villain. En attendant d'y revenir, nous offrons nos plus sincères sympathies, à sa famille, à l'Ecole Dentaire de Paris et à nos confrères Français.

"La rédaction".

L'incorporation de la Chirurgie-Dentaire

LA PREMIERE loi dentaire de l'Empire Britannique naquit à Toronto en 1868. L'année suivante, la province de Québec avait la sienne. L'idée de l'incorporation était originaire de Montréal. Vingt-sept ans avant (1842) le Dr Aldis Bernard, premier président de l'Association des dentistes de la Province et ancien maire de notre ville, avait tenté le coup en insérant au bill des médecins une clause à cette effet, qui fut rejetée. Le vrai mouvement avait commencé aux Etats-Unis où l'"American Journal of Dental Sciences", édité la première fois à New York en 1839, prêchait la nécessité de grouper les dentistes en profession fermée pour lutter contre le charlatanisme. Dans le même but et la même année, la première école dentaire ouvrait ses portes à Baltimore, Maryland, à tous les élèves désireux de s'instruire dans l'art de guérir les lésions de la bouche. Le résultat ne se fit pas attendre puisque trois ans plus tard les dentistes de l'Alabama obtenaient les premiers statuts dentaires du monde.

Tout cela ne fut pas réalisé sans lutte. Comme dans toutes les organisations nouvelles, les fondateurs, en dépit de leur courage et de leur volonté, commirent quelques fautes légères qui, une fois, le défaut de la cuirasse trouvé, les placèrent au rang des ennemis des dentistes au lieu d'en être considérés comme les amis. C'était mal récompensé le dévouement de ces pionniers. Disraeli n'a-t-il pas dit? "Les défauts des grands hommes sont la consolation des incapables." Il est agréable de se rappeler après un siècle les noms de Harris, Parmly, Baker, Brown, Hayden, quand leurs dénigreurs sont oubliés depuis longtemps.

Le mouvement réformiste après avoir

envahi le Canada gagna l'Angleterre. M. George Waite, dentiste éminent de Londres, en 1841, publia une brochure pour exposer les nombreuses raisons devant servir, à reconnaître la chirurgie-dentaire comme profession fermée, par le parlement et le corps médical. Il voulait que la dentisterie soit acceptée "comme une branche légale de la science médicale; que personne ne soit autorisé à exercer cet art difficile sans un examen passé devant un ou plusieurs membres du 'Royal College of Dental Surgeons'." Il suggérait non seulement une connaissance des matières fondamentales de la médecine et de la chirurgie, mais des notions élémentaires des mathématiques, de la philosophie, de l'anatomie, de la physiologie et de la chimie en plus d'un entraînement indispensable dans un hôpital ou une clinique dentaire.

Un véritable effort fut tenté en 1843, en Angleterre, pour obtenir une législation favorable, mais sans résultat. Déjà Hunter, Fox, Blake, Bell, Koecker avaient écrit des livres d'une réelle valeur sur les dents et leurs maladies. En France, les résultats ne furent pas meilleurs en dépit des écrits de De La Barre, Maury, Desirabode Jourdin et Magitot.

N'oublions pas, lorsque nous nous vantons, comme nous le faisons quelquefois, de la perfection de notre science de ce côté de l'océan, le fait que tous les collègues américains et canadiens, malgré leur bâtisses magnifiques et leur outillage moderne, ont puisé, durant des années, leurs sciences chez les auteurs anglais, français et allemands et que même aujourd'hui les auteurs européens sont encore les plus scientifiques.

Il m'est agréable d'analyser ces faits du passé pour nous forcer à regarder en avant. Comme nos pères ont com-

mencé à écrire l'histoire nous la continuons pour les générations futures. Rappelons-nous que la demande du Dr. Aldis Bernard fut sans succès parce qu'elle fut prématurée mais que la semence jetée ne germa que vingt-sept ans plus tard.

Il est aussi mauvais de commencer un travail trop vite qu'en retard. Il était réservé au Dr. Charles Brewster de Montréal de prendre le gouvernail en temps opportun. Aidé des Dr. Bazin, Trestler et Webster le mouvement commença sérieusement par une protestation heureuse aux comités des expositions contre la distribution de prix aux exposants de travaux de mécanique dentaire. Le Dr. Brewster dans une circulaire envoyée aux dentistes du Haut et du Bas Canada rappelle les idées de législation, dans l'intérêt du public et des dentistes, semées en 1842 par le Dr. Bernard. Son principal correspondant était le Dr. B. W. Day de Kingston qui inspiré par Brewster répandit le mouvement dans le Haut Canada et devient l'artisan de la législation ontarienne en 1868.

Le 2 septembre 1868, une première réunion fut tenue à Montréal pour organiser l'Association des Dentistes de la Province de Québec. Étaient présents les Dr. Brewster, Bernard, Bazin, Trestler, Cantwell, Alloway et Beers. Le 17 du même mois une autre réunion plus nombreuse cette fois avait lieu sous la présidence du Dr. Bernard. Étaient présents les Dr. Brewster, Bazin, Bernard, Trestler, Leblanc, Webster, Belle, Alloway, Valois, Nichols, et Beers de Montréal, McKee de Québec. Lefavre de Saint-Jean, Dowlin de Sherbrook et Brodeur de Saint-Hyacinthe. Un projet de loi fut élaboré et, présenté à la législature de Québec au printemps de 1869, fut accepté, et sanctionné par le lieutenant-gouverneur en conseil.

L'opposition au bill fut faite par un petit groupe qui pensait avoir une connaissance complète de la science dentaire du fait que quelques-uns d'entre eux étaient d'habiles mécaniciens. Pour ces ouvriers l'étudiant devait prendre sa formation chez l'orfèvre ou chez le technicien. Ils luttèrent donc contre l'incorporation avec la même force qu'ils se seraient opposés aux tables des dix commandements de Moïse comme arbitraires, L'étude obligatoire de la médecine et de la chirurgie fut critiquée à l'égal du sanscrit. Seule la connaissance de la mécanique dentaire était nécessaire et l'étude de l'anatomie, de la physiologie et de l'histologie dentaires n'était pas plus utile aux dentistes que la physiologie du cheveu servait au barbier pour bien tailler les cheveux ou la médecine comparée au boucher pour vendre un filet de boeuf. C'est de là sans doute qu'est née cette idée, longtemps répandue chez le public, qu'un dentiste n'était autre chose qu'un bon menuisier des dents, et qui malheureusement semble encore inspirer quelques-uns de nos contemporains. De nos jours nous trouvons une grosse proportion de patients préférant être écorchés vifs par des mécaniciens ou des forgerons que guéris par des dentistes instruits dans leur profession. Les gens jugent la science et l'habileté des dentistes non pas à la valeur de leur savoir mais à la grandeur de leurs annonces. La science et l'habileté mécanique doivent aller de pair. Personne ne réussira sans une technique bien maîtrisée. Il serait ridicule de prétendre que seule la théorie doit dominer. La pensée qu'un dentiste ne peut pas à la fois posséder la pratique et la théorie est un non sens. On trouve la meilleure preuve de mon avancé en regardant les plus savants de notre profession pour se rendre à l'évidence qu'ils sont des théoriciens et des techniciens.

—Paul E. Poitras.



STEPHEN A. MOORE, D.D.S.,
London, Ontario.

President of the Canadian Dental Association.
Business Manager of the Journal of the Canadian Dental Association.
Past-President of the Ontario Dental Association.

Be thou familiar, but by no means vulgar.
Those friends thou hast, and their adoption tried,
Grapple them to thy soul with hoops of steel,
But do not dull thy palm with entertainment
Of each new-hatch'd unfledged comrade. Beware
Of entrance to a quarrel; but being in,
Bear't, that the opposed may beware of thee.
Give every man thy ear, but few thy voice:
Take each man's censure, but reserve thy judgement.
Neither a borrower nor a lender be:
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.
This above all: to thine own self be true,
And it must follow, as the night the day,
Thou canst not then be false to any man.

—*Shakespeare.*

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, JULY, 1938

NO. 7

Pregnancy and Dental Health *

1. *What effect does pregnancy have on the dental tissues?*
2. *What advice and care should be given to the expectant mother to protect her dental health and promote normal development of the teeth of her child?*
3. *Are there changes in the care and diet of the mother after the birth of the baby and during the lactation period?*

by WALLACE GRAHAM, D.D.S., M.D., M.R.C.P., Toronto, Ontario.

Department of Medicine, University of Toronto, and Medical Service, Toronto General Hospital.

THOSE interested in nutrition sometimes feel that the attention of the physician has been so fixed on the actual mechanical process of childbirth and on the illnesses associated with pregnancy that he fails to stress sufficiently the nutritional state of the mother, which is of prime importance for the normal functioning of her organs. Admitting the importance of the size and shape of the pelvis, the lie of the child in utero, the blood pressure and the condition of the urine, the nutritionist feels that the pregnant woman should be regarded as the member of the population needing the greatest "protection" in order to insure adequate physical endowment for the child at birth and optimum nutrition during infancy.

Although this paper deals essentially with disorders of the mouth in pregnancy, it is well to realize that such disorders are not only of importance in themselves but may be significant signs

of general systemic imbalance and, as such, are vital factors in the safety of the mother and child. The old adage "a tooth for a child" has become so firmly fixed in tradition that it is rather generally accepted as a fact by both the laity and profession. Contrary to belief, however, there is little authentic evidence on which to base such a conclusion. Few experimental studies concerning the relation of pregnancy to dental caries are available in the literature but, in contrast, a large opinionated literature exists with little basis for the conclusions reached.

Klein found only one out of five studies on humans suggesting a positive correlation of pregnancy with an increased tendency toward dental decay. He investigated the problem in 700 rats and found no more caries in the molars of females, though pregnant one to eight times, than in males. In the incisors, however, which are continuously

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

growing teeth and as such susceptible to deficient diets, he found less calcium in the females than in the males.

Biro studied 400 maids and cooks of which 200 had been pregnant and 200 non-pregnant and found no significant differences in the amount of dental disease. Ziskin, in a study of 599 pregnant and 205 non-pregnant women, found fewer decayed teeth in those who had borne children. Starobinsky observed the incidence of dental decay in 150 non-pregnant and 216 pregnant women at the nine month and found no differences.

Mull, Bill and Kinney in Cleveland made oral examinations on 358 pregnant patients at six week intervals and found no appreciable change in the teeth during pregnancy nor in the first few weeks of lactation, other than what might occur in a similar group of non-pregnant women during the same period of time. Examination of the serum calcium and phosphorus showed no direct relation to the condition of the teeth. No increase in mouth acidity was found. There was no rise in the average number of missing and carious teeth with the number of pregnancies experienced. These authors reached the conclusion that the condition of the mouths of unmarried women of similar age and living conditions is no better than that of women who have had one or more children.

It is important to note, however, that three of the workers mentioned above found an increase in dental decay in both pregnant and non-pregnant groups, which was associated with advancing age only.

Lintz, on the other hand, in a study of 229 cases in office practice, varying in age from 20 to 70 years, found that more teeth were missing in women who had borne children, but he made no observations on the actual progress of

dental disease during gestation and lactation.

Turning from the teeth themselves to the surrounding tissue, there would seem to be no doubt that periodontal disease may be initiated by the pregnant state. Gingivitis is commonly associated with pregnancy and is usually found in one of three forms: (1) where the gums are thin, pale, shrivelled and withdrawn from the necks of the teeth; (2) a hyperaemic, congestive type; (3) proliferative type in which the interdental papillae become enlarged with considerable protrusion between the teeth. It is possible that hyperaemic, spongy gums may represent a vitamin C deficiency without other clinical evidence of scurvy, but this hypothesis has yet to be substantiated. It is also logical to conclude that in markedly deficient diets the alveolar bone, along with other bones, may suffer calcium depletion with resultant loss of tooth support.

In summing up the answer to the first question, therefore, we must admit that up to the present time no one has convincingly demonstrated that calcium can be withdrawn from fully formed enamel with subsequent caries formation, but the possible effect of pregnancy on the periodontal structures, gums and alveolar bones, is more firmly established.

WHAT ADVICE AND CARE SHOULD BE GIVEN TO THE EXPECTANT MOTHER TO PROTECT HER DENTAL HEALTH AND TO PROMOTE NORMAL DEVELOPMENT OF THE TEETH OF HER CHILD?

When we turn to the relation of maternal diet to the dentition of the unborn child we are on much firmer ground. The need of growing dental tissues for certain mineral and organic factors in the diet has been well demonstrated, and the general consensus of opinion now seems to be that the foetus, acting as a parasite, will draw from the mother those elements which it requires,

even at her expense, so that a diet must be planned to satisfy the maternal requirements.

In the human, tooth buds for the deciduous teeth are distinguishable by the eighth week of intra-uterine life. In the fifteenth week the enamel organs have appeared. Calcification begins in the tips of the incisors at the twentieth week. The six year molars begin to calcify two to three months before birth. In other words, the future of a given set of teeth depends in large part on the kind of material afforded the growing foetus. It is obvious, therefore, that the dietary control of the mother must begin early.

We shall consider briefly some of the essential food factors which are necessary to preserve the balance of the mother and to insure an adequate reserve for the needs of the growing foetus. Calcium, phosphorus and vitamin D will be considered together, as vitamin D facilitates the absorption of calcium from the intestine and also the deposit of calcium phosphate in the bones.

If using calcium in medication, it is necessary to appreciate that the exchange of calcium in the normal body is an open system with a large reservoir store in the trabeculae of the bones. The calcium in food, after absorption from the intestine, may be promptly excreted or may be deposited. Excreted calcium may come from food or from the reservoir in the bones. The blood is kept at a fairly constant level by a flow of calcium to and from the bones. Keeping this in mind, it is readily seen that the determination of blood serum calcium may be of little value and gives no indication of the amount of depletion that has occurred from the skeletal system.

The calcium requirement of women is greatly increased by pregnancy as an abundance of the mineral is required for the rapidly growing skeleton of the

foetus. Before birth and for several months afterwards the demand of the child for calcium is satisfied from the mother. The foetus contains, at seven months, about 5.39 grams of calcium, which increases to six times that figure during the last two months, so that emphasis must be placed on a rich calcium diet particularly during the last ten weeks when the foetus is storing calcium rapidly.

Should the supply of calcium be deficient, Toverud makes the important statement that the ultimate influence on the teeth of the child is of far greater importance than its effect upon bone, as bone may be repaired by post-natal feeding, whereas the damage to the teeth is irreparable.

In regard to vitamin D, controlled experiments with mothers and infants have shown that vitamin D can be stored in the body to a very important extent. The nutritional condition of the mother, therefore, not only influences the storage of vitamin D in the body of the baby before its birth but also the vitamin D potency of her milk.

Mellanby has shown that certain foods, such as cereals, contain definite anti-calcifying elements which may retard the dentition. With this in mind it is probably wise to diminish the amount of cereal in the maternal diet.

There is just one word of warning in regard to the use of vitamin D in excessive doses. It is now almost universally conceded that on large doses extra calcium is poured into the blood stream from the bones. The bones in dogs become porous, soft and fragile due to the removal of organic as well as inorganic matrix, and heavy deposits of calcium form in the blood vessels, heart muscle, kidneys, lungs and other tissues. A comparison of the tissues of normal dogs with those having heavy doses of irradi-

ated ergosterol showed enormous increases in calcium content.

Vitamin C, also known as ascorbic acid or cevitamic acid, is occupying an increasing place in current literature, due chiefly to the fact that it can now be synthetically manufactured and its concentration in blood and urine may be estimated by titration methods. In animals the teeth are the first part of the body to be affected by vitamin C deficiency. The odontoblasts and ameloblasts degenerate and no further enamel or dentine is laid down. The teeth may be seriously affected even when symptoms of scurvy are so slight as to be unrecognizable. Because of this almost specific effect upon dental tissues, Zilva has suggested a relation between vitamin C deficiency and dental decay, but as yet his hypothesis is not proven. Since the animal body probably cannot synthesize vitamin C nor carry any large store of it, the concentration of this vitamin available for the child in utero and in the mother's milk during lactation must be more or less dependent on her food. The diet, therefore, must contain adequate amounts of vitamin C to meet her own needs and also those of the child. This requirement may be met by adding 1.5 ounces of orange, grapefruit or tomato juice to the diet daily.

To briefly summarize an adequate diet during pregnancy we may say that the mother of average height, weight and body activity requires approximately 2,500 calories. This is probably best divided in this country into 80 to 100 grams of protein, 350 grams of carbohydrate, and about 80 grams of fat. Carbohydrates are not injurious to the teeth and are vitally necessary to foetal and maternal metabolism and should be taken in considerable amounts. An extended use of potatoes is recommended by the Health Committee of the League

of Nations to replace part of the sugar and highly milled cereals in the ordinary diet, as potatoes provide extra vitamin C and more readily available calcium, phosphorus, iron and B vitamins than milled cereals.

The diet should contain at least one quart of milk daily. Milk, whole or skimmed, is a rich source of calcium salts and phosphates and of vitamins B₂ and B₁₂, and milk fat is an excellent source of vitamin A. Some of the milk may be taken in the form of cream soups, buttermilk, cocoa and egg-nogs or in desserts such as custards, junkets and cream sauces. Milk has an additional advantage in that the abundance and availability of its calcium salts and phosphates enhance the effect of vitamin D derived from other articles of diet or from sunshine. Although itself poor in iron, milk renders more effective the iron contained in the diet.

Eggs contain vitamins A, B₁, B₂ and D and are rich in iron. The proteins of milk and eggs are not only themselves of the highest nutritive value but they also improve the utilization of protein contained in cereals and vegetables.

Ordinary diets are usually inadequate in vitamin D and, except in sunny seasons, a daily ration of two teaspoons of cod liver oil or other fish liver oil rich in vitamins D and A is to be recommended in the diet of the pregnant and nursing mother and in that of the growing child.

In goitrous regions where sea fish are not available, the use of iodized salt is recommended.

Proteins may be taken in the form of meat, fish, fowl or glandular organs as well as in milk, eggs and cheese as mentioned above. Substantial servings of two kinds of green vegetables is desirable daily. The rest of the diet may be added as desired.

ARE THERE CHANGES IN THE CARE AND DIET OF THE MOTHER AFTER THE BIRTH OF THE BABY AND DURING THE LACTATION PERIOD?

In regard to lactation, an abundance of data indicates that lactation may produce greater mineral disturbance than gestation. Shukers and Macy found that lactation increased the food demands approximately 60 per cent over and above those of pregnancy. An increase in calcium in the diet is desirable which will support a liberal milk flow as well as maintain body equilibrium. It has been shown that the calcium content of the mother's milk remains the same regardless of the lack of calcium in her diet and it would appear that some stimulation is brought into play which makes more calcium available in the blood stream for milk secretion. Here as in pregnancy then, unless the intake is made sufficient, the supply will be drawn from the mother's reserve store in her bones. Similarly, the carbohydrates, fats and proteins should be increased during lactation, often up to 4,000 calories.

In conclusion I should like to stress the fact that maternal diets must be viewed broadly without undue emphasis on any one factor. In such a view, with recognition of the fundamental facts of nutrition which we have in our possession at the present day, we will not be

sold on the beneficial effects of one therapeutic measure. Every pregnant woman is an individual problem and all cannot be treated by one stereotyped prescription disregarding other elements most necessary in a properly balanced diet.

REFERENCES

- Aub, J. C.: Jour. Amer. Med. Assn., 1937, CIX, 1276.
 Biro, S.: Vrtlschr. f. Zahnh., 1898, XIV, 371.
 Day, C. D. M.: Jour. Amer. Dent. Assn., 1933, XX, 1745.
 Fish, E. W., and Harris, L. J.: Phil. Trans. Royal Soc. of London, Series B, 1934, CCIII, 489.
 Klein, H.: Dental Cosmos, 1935, LXXVII, 864.
 League of Nations: Problem of Nutrition, Vol. II, Geneva, 1936.
 Lintz, W.: Med. Jour. and Rec., 1930, CXXXI, 452.
 Mathieu, A.: Northwest Med., 1933, XXXII, 292.
 Mellanby, E.: Lancet, 1933, II, 1131.
 Mull, J. W., Bill, A. H., and Kinney, F. M.: Amer. Jour. Obst. and Gynec., 1934, XXVII, 679.
 Sherman, H. C.: Chemistry of Food and Nutrition, 4th Edition, New York, Macmillan, 1933.
 Shukers, C. F. et al: Jour. Nutrition, 1931, IV, 399.
 Starobinsky, I. M.: Deutsch. Monatschr. f. Zahnh., 1929, XLVII, 238.
 Toverud, K. U., and Toverud, G.: Acta Paediat., Supp. 2, 1931, XII, 1.
 Zilva, S. S.: (a) Biochem. Jour., 1929, XXXIII, 1199; (b) Biochem. Jour., 1930, XXIV, 1687.
 Ziskin, D. E.: Amer. Jour. Obst. and Gynec., 1926, XII, 710.

No happy man retires to a house, an estate, or even to voyage a world he has always secretly longed to explore. Rather, if he is wise, he retires to a gentleness and ease of spirit; small interests and curiosities he once knew and savoured greatly; small personal dreams and ambitions that never grew, mostly for lack of time and space to cultivate them; to all those things which he has been forced to neglect, relinquish and forswear in the dusty battle of life.

A man should not retire from business suddenly. He should see to it that business retires from him, like a crowd he leaves voluntarily, a noise that abates, a strenuous struggle that has been won, to go home and live in knowledge and acceptance of everything that has been saved from the conflict.—C. V. Clark in "Eve's Journal".

Pregnancy and Dental Health *

1. *What effect does pregnancy have on the dental tissues?*
2. *What advice and care should be given to the expectant mother to protect her dental health and promote normal development of the teeth of her child?*
3. *Are there changes in the care and diet of the mother after the birth of the baby and during the lactation period?*

by A. E. HIGGINS, D.D.S., Toronto, Ontario.

WHAT EFFECT DOES PREGNANCY HAVE ON THE DENTAL TISSUES?

UNDER the present conditions existing in civilization, it is common to see dental caries, periodontal lesions and so-called pregnancy gingivitis in the mouth during and after pregnancy. Apparently during pregnancy the mouth is more susceptible to disease.

During this period in cases of dietary deficiency there may be a drain on the maternal calcium store to meet the demands of the foetus for certain elements, though at birth the teeth contain only .5 gm. of tri-calcium phosphate. (Hess.) There is a mild degree of negative balance i.e. more calcium is excreted than absorbed in the early months. The maternal serum calcium according to most authorities shows little or no deviation in the first trimester though it falls to the lower limit of normal or slightly below during the latter months. (Apperman), (Goodwin).

There is a general feeling in the dental profession that before birth the foetus is a parasite living at the expense of the mother and unless the mother assimilates sufficient calcium from her food, the foetus may be supplied from her skeletal tissues, the effect being more marked with each child.

Nature so orders things that diet does not influence the child so much as it

protects the mother. Little is gained so far as foetal dentition is concerned by increasing the calcium and phosphorus intake of the expectant mother (Hess), though it has been said that there is more than an even chance that the baby will experience trouble during the eruption of the teeth if the mother has been deficient in calcium or phosphorus or vitamin D during pregnancy. Greater growth takes place before birth and immediately after than at any other time in life.

A recent publication (Guggenheim) says: "It has been learned that enamel defects in the deciduous teeth are caused by disturbances in the nutrition of the mother. Several bits of evidence have been pieced together in developing this important fact. First is the evidence gained in research work on tooth development; this shows that the teeth begin to form six months before birth and the crowns of the deciduous teeth are calcified before birth. Second is the evidence gained by questioning mothers as to their prenatal health and diet in regard to children who have been found to have poorly formed deciduous teeth; this shows either a diet deficient in needed elements or poor health during part or all of pregnancy. Third is the fact that co-relation has been shown between zones of poorly formed enamel

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

in different teeth of the deciduous dentition and periods of poor health which the mother had experienced during pregnancy."

This same publication shows actual cases with photographs of children's mouths; where the mother's health and diet during pregnancy and lactation were good the children's dental conditions were excellent, and where the general health was poor and dietary deficiencies present during pregnancy and lactation the dental conditions of the children were poor.

WHAT ADVICE AND CARE SHOULD BE GIVEN THE EXPECTANT MOTHER TO PROTECT HER DENTAL HEALTH AND PROMOTE NORMAL DEVELOPMENT OF THE TEETH OF HER CHILD?

Prenatal care means essentially the intelligent observation and treatment of the pregnant patient from the beginning of gestation until the onset of labour. It is naturally the duty of the obstetrician or general physician to have his patient under close supervision. His is the responsibility to protect against dietary deficiencies in calcium, phosphorus, vitamins C and D.

Thorough dental examination is advisable before the fourth month of pregnancy and close co-operation with the dentist is to the patient's advantage. The pregnant state is no contraindication to the careful eradication of all dental infection. If extraction of teeth is necessary, a sedative and local anaesthetic is advisable. Extensive extraction at one time should be avoided. The patient should be advised to rest before and after dental operations. If a patient is at or near full term, it is questionable if extraction of infected teeth is advisable for fear of disturbing a localized focus and disseminating the infection by way of the blood stream. Ordinarily in pregnancy this is satisfactorily cared for, but

if labour should ensue the patient runs the risk of puerperal sepsis. A wise precaution is, therefore, to have dental examination and treatment in earlier months.

Disease may be acquired through the mother during the foetal period. Microbic disease is never inherited. Strictly speaking, if the child is born with such a disease, it is by contagion. The reappearance of a diseased condition in successive generations does not prove that it has been transmitted. Inheritance of a predisposition to a disease is not inheritance of the disease. It is most likely what is inherited is a deteriorated power of resistance to the infection. The physician should see that each patient reports for dental examination, and the dentist should be fully aware of his responsibility where pregnancy exists; the advice and co-operation of both may be a very important factor, not only in affecting the dental health but in improving her general health and safety and increasing the resistance of the child.

ARE THERE CHANGES IN THE CARE AND DIET OF THE MOTHER AFTER THE BIRTH OF THE BABY AND DURING THE LACTATION PERIOD?

Generally speaking, breast fed babies erupt their teeth earlier than those artificially fed. Nature has supplied the baby with the food best suited to its needs, and after birth during the lactation period the mother's diet is important. The inclusion of plenty of fresh fruits and vegetables in the diet of the lactating patient will in addition to ensuring adequate vitamin C, provide an alkaline element, after absorption, on which calcium equilibrium may be more easily maintained.

There is no storing of vitamin D by the foetus, and rickets may develop after birth whether the mother has had vitamin D or not, if the supply is not main-

tained in the growing infant. Cow's milk, if supplemented, may be better than deficient breast milk.

The Council on Dental Therapeutics finds that there is no carefully controlled evidence that the addition of calcium and phosphorus compounds whether inorganic or organic, promotes retention of these elements and hence freedom from dental diseases, except in known cases of deficiency. Where this occurs, milk serves as an excellent source of calcium and phosphorus in a readily assimilable form.

To improve the teeth and bones and general health of future generations, it seems necessary to begin with the expectant mothers and supervise their health and nutrition so that they may have a well balanced ration in excess of their usual food requirements to the end that both mother and child may not lack any of the elements for proper growth and development. Empirical prophylaxis by regulation of the diet of children is distinctly effective and at least until the problem becomes more fully understood, deserves more universal adoption.

School Dental Clinics

by R. S. ROSE, D.D.S., Eston, Saskatchewan.

IN THE Province of Saskatchewan, during the past year or two, many dentists practising at country points, have been asked, in the interests of public health, to conduct dental clinics for the children attending country schools in the surrounding territory.

The request for this service comes, as a rule, from the district nurse on duty in the particular area served by the dentist. When the request is made the dentist is often made to feel that if he does not comply with the request that his reputation as a public-spirited citizen is liable to suffer, and it is not at all unlikely that his practice in general, will also suffer. These young women, who are acting in the capacity of public health nurses, are not altogether to blame for the way in which the request is framed, in fact they may not be to blame in any way. They are sent out to get as much work done by physicians and dentists as possible, and I am convinced that their

positions depend upon the degree of their success. Indeed I have had these nurses tell me that they were ashamed to ask for what they did, but that they simply had to do it and obtain results, in order to escape censure from headquarters. I have had the misfortune to have conducted a few of these clinics, and my experience has led me to make a decision not to conduct any more of them as long as the present system is in force.

To anyone who has not had the misfortune to have been called on to conduct one of these clinics, the above statement may seem to be an exaggeration. Let me describe for you, if I can, just what the procedure is. Before I do so however, I wish to state emphatically, that what I have stated above, or in anything said hereafter, I do not wish to belittle the work of the public health nurse, whose efforts, when properly directed, have done so much to main-

tain the public health during these years of the depression.

When one of these clinics has been decided upon by the nurse and the officials of the school district, the dentist is approached by the nurse and asked, in the name of public service and public health, to give two or three days of his time, as well as all materials used, to conduct a clinic for one or two school districts with, probably forty children in all, ranging from six to sixteen years of age. In this clinic all necessary extractions are to be done, together with plastic fillings of all kinds, and it will be found that root canal treatments will be absolutely unavoidable in a few anterior teeth. If there are no more than forty children, or at the outside, forty-five, remuneration will be for three days only, fifty cents per child being paid by the individuals themselves or by institutions in the school district, and an amount paid by the Department of Public Health sufficient to bring the total to fifteen dollars per day, regardless of how many are treated or how much work is done. If less than ten or twelve patients are treated the nurse questions if the Department will pay for a whole day's work.

The first day, the nurse asks how many you think you can handle, and in case you are uncertain, she will suggest about fifteen as a good start. This is without knowing the nature or the amount of work these children will require, no previous examination having been made by the dentist as they are all resident about twenty miles from his office. Of course the nurse has examined them but her report frequently fails to indicate the necessary amount of work to be done. Again this is no fault of the nurse. She can hardly be expected to be able to give a comprehensive picture of the mouths of forty children after examining them, in a quite casual

manner, with a mouth mirror and an explorer. Consequently we may find that the first day's group, driven in twenty miles over none too good roads, has about three days' work or, perhaps, only about a half day's work.

Let us suppose that each of the first twelve children has about the average amount of work found these days in the mouth of a child. This will mean that, in all, there may be fifteen extractions and about fifteen or twenty fillings of various kinds (no gold of course). If this work is done in the way it should be done, with some attention paid to proper cavity preparation, proper care as to sterilization in extractions, and the proper mixing of filling materials, not to mention the placing of the rubber dam for treatments and silicates, I submit that there is no dentist living who can do this in the time at his disposal, i.e., eight or nine working hours. In addition to this I will say that fillings done under such circumstances are in most cases, worse than none at all.

In a clinic recently conducted by myself, I crowded into three days, an amount of work that, at the Saskatchewan Dental Societies' schedule of minimum fees for adults would have called for a total charge of two hundred dollars. I received a total of fifty-six dollars and fifty cents in full payment, after waiting over three months for the check from the Department of Public Health.

I am not proud of the work I did, in fact I am downright ashamed of some of it, as I told some of the parents at the end of the clinic. I doubt, however, that this had the desired effect, and no doubt the parents will be very much surprised if some of the work does not remain in good condition. The fact remains, however, that this work must be done this way or not at all, under the present system. The Department refuses to pay its share unless a certain number

of patients are treated. The point is, that the whole thing is on a basis of the number of patients treated, not on the amount or quality of the work done.

I do not think the dentists of this Province object to the fact that we seem to be expected to do work under the auspices of organizations at a reduced fee. I think a very definite objection can be raised, however, to the fact that remuneration is on the basis of the number of individuals treated and not on the work performed. Relief orders for any other kind of service or supplies is at the same rate as for the individual who has the money to pay. Dentists and medical men, however, seem to be expected to give their services for less than the set minimum fee, and in the case of the dentist all materials must be supplied by him. In addition to all this he must work under such conditions as

to make it impossible for him to render his best service to his patients.

I do not think the dentists of Saskatchewan are in any way behind other groups in their efforts to do their share to relieve the distress which may be present in the communities in which they live, but one conclusion is apparent, that the dentist is expected to (personally) bear a large share of the cost of relief dentistry and school dentistry. This is discrimination against the profession, and to my way of thinking cannot be justified. After all, what we want is a chance to do our work to the best of our ability and for a reasonable fee. Even if the fee is not forthcoming, at least we should not be asked to slight our work in the interests of quantity production. The present system with regard to the above mentioned school clinics, makes both good work and reasonable fees impossible. 1938.

Conventions

ANNUAL MEETING OF THE BRITISH DENTAL ASSOCIATION, BELFAST,
JULY 29-AUGUST 3.

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.
K. C. Campbell, Secretary, 88 Portland Place, London, W.1., England.

EASTERN ONTARIO DENTAL ASSOCIATION, KINGSTON, ONTARIO, SEPTEMBER 26-27.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

TWENTY-FIFTH ANNIVERSARY MEETING OF THE AMERICAN ACADEMY OF
PERIODONTOLOGY, COLORADO HOTEL, ST. LOUIS, MISSOURI, OCTOBER 20-22.
Those interested in Periodontia are invited to attend this program of scientific papers
and clinics.

Raymond E. Johnson, Secretary, 824 Lowry Medical Arts Bldg., Saint Paul, Minnesota.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

14TH GREATER NEW YORK DENTAL MEETING, HOTEL PENNSYLVANIA,
NEW YORK CITY, DECEMBER 5-9.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office," 314 Somerset Building, Winnipeg.

*A Treatise on Dental Office Practice**

By W. N. MILLER, D.D.S., Flint, Michigan

(Continued from the June Journal)

PSYCHOLOGY OF CHILDREN'S DENTAL CARE

TIME was when parents thought children's services should be rendered at half or even a quarter of the usual fee for adults, or perhaps thrown in if the parent had had some services rendered. Now, times have changed, but many dentists haven't. Many dentists still neglect the mouths of the best patients' children because of remembrance of the old attitude. Why not take a tip from the druggist and the grocer, who appeal to the adult trade by pleasing the juvenile? All of the lay magazines, teachers' clubs, parent-teacher associations, parents' and children's magazines, school teachers, nurses and health articles in the daily press are constantly urging the parent to avoid, for their children, the dental disasters of their own experience by giving early and constant care. Surely the dentist is nearsighted who fails to get in step with a program so universally espoused. The only possible reason for his failure to enjoy the care of children must be the attitude of the parents toward fees. With that removed the most worthy and helpful and pleasant branch of his practice may become also his most lucrative.

With both children's and adults' care, a high standard of service presupposes

not only skilfully designed and made restorations but an instruction in home care which prevents recurrence of trouble or reduces it to a minimum for that patient.

I would rather work for the first ten youngsters you may meet regardless of age than for the first ten adults you may meet, and that is the answer I always give patients when they ask rather timidly if I do children's work. Unless you are a natural born liar you can acquire an aptitude in handling juveniles that will bring many pleasant appointments, many well-paid hours and many adult patrons acclimated to your own environment ten years from now when you may find yourself less of a drawing card, if you have neglected this opportunity. If you will have patience with firmness, kindness without effusiveness and cultivate a desire to explain what you intend to do in advance, you will soon find yourself understanding children, and they you. But you must never be found deceiving them. That is unforgivable to the child mind. The only children with whom you have any trouble are those to whom parents or some other dentists have been untruthful. When mother comes into the room and says, "Now, Mary, just let the doctor look at your teeth; he just wants to wipe them with

*Presented before the Academy of Dentistry at Toronto, March 29, 1938.

some cotton; he won't hurt you"—brace yourself for trouble. A good answer is about as follows: "Now, Mary, your mother couldn't fix these teeth if she wanted to, and she doesn't know at all what I am going to do. She has really been *trying* to make it easier for you to let me fix your teeth, but her way of doing it is not a good one, and she has frightened you instead of making it *easier*. Now, if you will sit up in the chair, we will put this little bib around your neck just as though we were going to give you some breakfast, and I will give you a mirror so that you can watch me. I will tell you just what we are going to do before we do it; you can depend on it that if I tell you it will not hurt it won't, and if I tell you it will hurt you a little you mustn't be frightened, for it will hurt just a little bit. Now, Mary, we are going to play another game. Do you remember when mother made you sit up in a chair and keep still for five minutes—well, *this* is going to be a *lot better game* than that. We are going to have mother sit *right over there in that chair* and keep still all the time we are working for you. If she tries to talk to us at all, we will make her go out in the other room and stand in the corner." If at any time through this talk the child starts to say something—immediately become interested in her idea — let her know you will stop at any time to listen to her. You will probably be the first one who has treated her as though she was of importance. *A good general rule to apply over your whole practice is to treat children like grown-ups and grown-ups like children.* Never make a promise to a child whether pleasant or unpleasant that you do not intend to keep to the letter. After I have become acquainted with my young patient, speaking now of a child up to ten years of age, I reach in my pocket at the end of an appointment during which commend-

able work has been accomplished and hand the youngster a dime. I say something like: "Here you are Sir; you have earned a dime this morning. That is what a fellow gets for doing as he is told and trusting me while I am working. We have accomplished a great deal this morning and if you are good next time you will earn another dime. If you want to see what a good spanking I can give you, try being naughty once." And don't think I haven't warmed some of them up.

With the over-anxious mother it is often necessary to demand her permission to handle the child in your own way. If she objects you may say, "Now, you seem to be unable to get Bob's confidence, but we will let you try for another five minutes, while I keep still. If we can't do anything in that length of time, you will have to either let us take care of him in our way or take him home." In any of these things you say you must always remain unruffled and pleasant internally. Just as it is possible to make a game of selling yourself to the shopper or casual patient, so it becomes very interesting to see how many of the unexpected and exasperating situations you can work yourself out of and gain the confidence of the most impossible children and parents.

We are forever telling adult patients that the reason for such deplorable mouth conditions is lack of childhood care. If there is ever a place where a prophylactic list is a necessity, this is it. I have many children who come in at stated intervals. I polish and tape their teeth carefully, fill defective pits and fissures wherever I can insert the finest explorer point, and give the much needed praise or admonition which eventually produces a desire on the child's part to have a clean mouth. I think I have acquired a fairly successful method of kidding youngsters into co-operating with me in the care of their mouths. If

I can praise a child's care, I usually say something like this as an aside to the assistant or the parent if present, "Bob's mouth looks so much better this time that I suppose I ought to tell him what a good boy he has been; but I am not going to do so, for he might get the idea that he doesn't have to keep on. I have found one little place over here that he has been missing, so I will 'bawl' him out for missing that one." And to Bob, "You see, young fellow, that the better you do things the more people expect of you. After having these teeth looking so good this time, if you ever come here with them all dirty and neglected what I will do to you will be just too bad." I have praised him more than I could have with a gushy statement. At the same time, I have taught him a lesson in general behaviour—I have admonished him against neglect—I have saved him the embarrassment which a ten-year-old feels when someone enthuses concerning his virtues. A ten-year-old boy doesn't like to be considered virtuous. I have given him a chance to cover what little distress is occasioned by the compliment with some snappy comeback. He is quite apt to say, "If you get rough with me I will bring my gang in." When I can slap him on the back and say, "All right, old timer, here is your dime—let's hope we don't have to get rough."

Possibly I have given too much space to the details of conversation with children, but if so it is only to show you

how interested I am in this most important phase of a dental practice. Repartee will vary with the personalities of both dentist and patient and nothing enlivens the four o'clock tiredness like an appointment with a good, snappy youngster.

The answer to the game of acquiring confidence with children is to find out the language which that particular child talks and understands and to never, never say "little boy, little girl, little man, sonny, or sister." Any of these terms will do after a patient is thirty-five years old, but never before. Call them young lad, young fellow, old man or old timer, young lady, old lady, grandma, Aunt Emma, or any other grown-up term you can think of. Timid children will react differently than rough-necks, and if you are successful in adapting yourself to each type you will acquire a change of pace which any big league pitcher would envy.

Remember never to allow yourself to become angry with a child. You may have to speak angrily and look angrily and if you have promised a slap—be sure to keep your promise if necessary, but never actually permit your own disposition to get the better of you.

All of life is a game about like the old game of parchesi—sometimes you go ahead a little—sometimes in great strides; then you meet a wall you cannot pass, again you slip back to start all over, but if you get angry you have ceased to play the game.

(To be Continued)

Any man who bolts the door upon his daily practice when the clock strikes will merely have the chance of earning his daily bread and I am well aware that that satisfies the great majority. But, should the arrangement of the nerve cells of the cerebral cortex be such that he is not satisfied with this, then he will devote some spare time to trying to cull ideas, afterwards endeavour to develop them and ultimately he may, in some small degree, have a niche in the Hall of Fame. "The honours of genius are eternal," and yet "The paths of glory lead but to the grave."

—John Battersby, M.B., Ch.B. Manc., L.D.S. Eng.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM MANITOBA:

What method have you found most acceptable to patient and dentist in determining the fee for operative and prosthetic services rendered to the following groups: relatives, physicians, nurses, ministers, missionaries, dentists and their families, widows and dependant children of deceased dentists?—*Dr. X.*

REPLY FROM NOVA SCOTIA:

When I began practising, about forty years ago, reciprocal courtesies between the dentist and the above mentioned groups was recognized procedure; but modern methods would seem to have entirely superseded the older custom.

With fellow dentists and their families, also clergymen, I still observe the professional courtesies which I was taught. I question that any "method", for the entire categories mentioned, would be satisfactory.—*C. S. McArthur, Truro.*

REPLY FROM ONTARIO:

With the exception of members of his own profession, there is, in my opinion, no good reason why a dentist should give any more financial consideration to members of any one of the groups of persons mentioned above, than to any other of his patients of like financial rating. (I think all patients should be classified according to their ability to pay.) If the dentist wishes personally to give some consideration to certain

patients, all right, but I do not think he should have to feel obligated to either reduce a fee or render a service gratis. I believe that principle alone, and neither sentiment, personal relationship, profession, nor vocation should, in any way, influence the fee, except in so far as any one of these affects the income of the patient. It must always be remembered that the dentist has a duty to himself, and he could soon be made a victim of a policy where such personal considerations as this were given. He would find, as several dentists of many years' experience have found, that these patients would soon compose the bulk of his practice.

With dentists themselves as patients, I think the fee should be a matter of mutual agreement. Some dentists prefer to be charged on the same basis as the laity. In any case the dentist rendering the service should be compensated for the cost to him. — *John A. Bothwell, Toronto.*

REPLY FROM ONTARIO:

The problem of just how much free service a dentist is prepared to undertake is a matter which the dentist himself must determine. Unrestricted hours of free service can and do make a serious inroad into a dentist's annual income. The following example, for instance, will give a graphic illustration of the extent to which free service can affect your income:

Total possible hours per year—	
1200 @ \$6.....	\$7,200.00
Overhead costs per year.....	3,600.00
Possible Profit.....	\$3,600.00
One hour per day free, or partially discounted, service, say	
—250 hours @ \$6.....	1,500.00
Net Profit.....	\$2,100.00

In other words, by donating an average of one hour's service free each day, you give away 42% of your possible net income, leaving only 58% for you and your family.

I suggest, therefore, a budget of a determined number of hours of service per year to be given away to (1) family, (2) immediate relatives, (3) dentists, (4) needy cases the dentist wishes to aid, and (5) any others he may feel he wants to help.

It will be surprising indeed to see how quickly the budgeted hours will be exhausted by the above classes, and very little, if any, time will be left for those whom custom decreed in the past to have a call on the dentist's professional services at reduced or no fees. If the dentist decides to go beyond the limits of his budgeted time allowance, he does so "with his eyes open."

There is one cardinal point to be kept in mind—the question of *how much time the dentist can afford to give*. After this has been decided, it will be a simple matter to allocate the time to the various classes mentioned above. But—BEGIN AT THE BEGINNING. Decide *first* how many hours you will be able to give in free service throughout the next twelve months. Then, when a call comes, examine the needs of the prospective patient carefully. Ascertain the treatment which will be necessary, and estimate the NORMAL fees for the case, and thereby determine the time allowance which you must make for your work. If your time budget necessitates you giving partial treatment, or offering

your services at a reduced fee, you may explain to the patient at the beginning your plan of limiting your free time to the point where it will not seriously affect your office income. Avoid misunderstandings at all costs. Be plain, be definite, be patient. Your frankness and honesty will be appreciated, and if the whole basis of payment or adjustment is clearly defined before the work is begun, with limitations set as to the amount of time which you are able to give, there will be no misunderstandings, and no undue encroachment upon your time and your services.—*Charles McLean, Toronto.*

REPLY FROM ONTARIO:

In answering this "Problem from Manitoba", I do not see why there should be any difference, generally speaking, in the matter of fee determination, in regard to these groups, than to any other group that make up a dental practice.

My personal experience has been, that none of these groups are coming to you or to me, with any idea that they should be specially favoured. Then, why should we charge them less than our regular fees? There will be cases, where you will wish, for various reasons, to render your services at a very small fee or no fee. These are, however, individual cases and you alone, know what the circumstances are in connection with them.

Many misunderstandings will be avoided by quoting fees in advance, especially to relatives and friends.

There has been a mistaken idea in the past, that one dentist should not charge another dentist a fee for services. Personally, I think it ridiculous, that I should give my time and my materials to Dr. A—or Dr. B—or Dr. C—, gratis. These men are likely earning as much or more than I, and they, in nearly every

case, do not expect it of me. In the case of Dr. F—, who attends to my personal dental ills and I his, we have found a barter basis very satisfactory. We have found, too, that where any extensive restorations are necessary, that it is much more satisfactory to look after the laboratory requirements of our own cases.

I know of an instance in this city, which did not occur in my office but in that of a friend, when a dentist, on having several inlays inserted, left the office with a "Thank you". Thanks, while appreciated, will not, however, pay for gold or office overhead. In the course of time, a statement was rendered for a very moderate amount. To this day that account has not been paid, and that dentist has lost the respect and the friendship of his dental benefactor.

In the case of the physician or nurse, I cannot see why any different treatment should be accorded to them than to your dental confrères. Personally I have always paid, what I presumed to be their regular fees and likewise have charged them my regular fees. There might be an individual case, where exception might be made to the above general statement.

Ministers and missionaries, in most cases, are earning salaries, which compare favourably with those of the practice generally. There is the occasional case, in which you know that the stipend is barely sufficient on which to exist, and I think that here one might be charitable.

Widows and dependent children of deceased dentists should be treated according to your knowledge of their circumstances. If a very small estate has been left, I don't think it would hurt any of us to adopt that family, or rather I should say its dental ills. Make a small charge if you wish, but only sufficient to hide the charity aspect.

Relatives, in my case, outside of the immediate family, pay regular fees. This

may require a little educating. The favourite aunt who helped finance your college course, might be accorded a little different treatment, as a matter of appreciation of her assistance, at a time when financial backing was sorely needed. You, however, are the only one who can judge what to do in these cases.—
Lloyd A. Stirling, Toronto.

REPLY FROM SASKATCHEWAN:

Before I graduated I was advised by a physician to make only two distinctions in my treatment of patients; namely, those in straightened circumstances should be considered, and those in better circumstances should be charged the regular fee. I have adhered strictly to this advice.

I have always considered that I was entitled to my fee. I have always paid my relatives for anything I purchased from them; also physicians, nurses, and dentists. I have contributed reasonably to my church. I have never refused to take care of any widow or child of anyone, let alone a dentist, who was in need of dental attention. I am satisfied that this is the only equitable way to handle this problem.—*Dr. ——— Regina.*

REPLY FROM ALBERTA:

In rendering accounts to this group of patients I have found it most satisfactory to make out the statement for the regular fee and then deduct a professional discount. This amount may vary according to the circumstances involved in any particular case, but on the whole, I try to keep it a standard professional discount.

In making this discount the operator must keep in mind that to run his office efficiently, the cost of production will probably be from 40 to 50 per cent. of the gross fee, depending on the type of

work being undertaken. Few can keep this figure down to 30 or 40 per cent, in these days.

This must be considered if the operator is going to be fair to himself, although he may feel more kindly disposed to some of these groups than others, and recognize a greater need for discounting the account.

Many people look with much favour upon the opportunity to purchase merchandise at wholesale prices, in which case they may obtain the goods at a third below the retail price, but one must remember that this discount is not an out-

right gift of the entire amount, as is the case in giving a professional discount.

The amount of a professional discount is a personal problem, which each operator must decide for himself, to, in some way, let the patient know that a professional discount has been given, in order to have a clear understanding of the whole transaction.

On my records I indicate the amount of the discount, and the secretary carries the figure forward, in making out the chart record and daily production sheet tabulations.—M. M. Dunsworth, Edmon-
ton.

"If the time and skill spent in extracting and replacing the teeth were spent in removing the tartar and the congested loose tags of granulation tissue and in teaching the patient to rub and harden the gums, despite his civilized diet, a foundation of health would be laid."

—E. Wilfred Fish.

In this country there are 45,000,000 people. Of this number over ninety per cent. suffer dental disease in a greater or lesser degree. A first-year dental student would know that 14,000 dentists cannot provide continuous and adequate dental treatment for ninety per cent. of 45,000,000 patients. And when we come to know that only a very small proportion of those 14,000 dentists are anything like fully occupied, we can surely visualize how few are the people who receive dental treatment, and how vast are the numbers of untreated men, women and children. That alone should suffice as a reply to the unbelievers in the necessity for wider measures of dental health education.—Edward Samson, L.D.S.R.C.S., Eng. F.C.S. in B. D. Jour., March 15, 1938.

I often wonder what a breakdown is. Once when I was in such a state that I could not bear my wife to be out of my sight for a second, when I could not eat, when I was sleeping vilely, when I could not read, when the day and night were twenty-four hours too long, when I thought of nothing and no one except myself, when I was in constant dread of I knew not what, when I was certain I was going right off my head, when I longed to be dead but was afraid of death, if possible more than I was afraid of life, a doctor told me that I must pull myself together, otherwise I might have a nervous breakdown.

—Geoffrey H. Gilbey in "The Way Out".

Taste is the mark of an educated man, imagination the sign of a productive man, and emotional balance the token of a mature man.—Philip N. Youtz, in Medley.

The Forum

• HORIZONS BEYOND

By FLOYD E. GIBBIN, D.D.S., Buffalo, N.Y.

LIFTING his head high above the water, a swimmer sees the full sweep of the horizon where the sky meets the sea, and to him it seems only a stone's throw away. Yet high up on the bridge deck of the ocean liner, the watch officer looks out across the broad expanse of the sea and to him, the horizon appears to be eight or even ten miles away. But, on a clear night the pilot of the air mail looking down on the dark world from an altitude of 10,000 feet sees in one sweeping glance, the clustering lights of Cleveland, Pittsburgh and Buffalo.

For there are always new horizons beyond—horizons that open up for those who will climb to the higher altitudes to look out upon a broader world spreading out below.

What then may lie beyond our dental horizon of today?

Do we as a profession fully realize our tremendous responsibility and opportunity with the 45,000,000 junior patients of our country? Ours is a tremendous responsibility in helping to start them off down the long and difficult road of life with just as many things on their side as possible.

Do we see dentistry as a local problem or just "patching teeth" alone, or do we envision the far-reaching importance of the dental apparatus in the general biological development of the internal and external structures of the head? Do we keenly realize the effect of deviations from normal in the form of tooth and soft tissue pathology, abnormal development, constitutional disturbances upon the health, happiness and achievements

of the individual? What an opportunity for service is ours in the early recognition and correction of these deviations.

Air and food are two of the most essential requisites for the preservation of life.

Retarded or arrested growth and function of the maxillae is not self limiting to the oral cavity alone but includes the nasal cavity and co-related accessory sinuses as well. The effect of impaired breathing function upon general physical development and pre-disposition to disease is enormous.

The highly intricate process of nutrition is dependent upon the mastication, digestion and assimilation of proper foods. It is only too obvious, that if mastication as the initial step in this intricate process be seriously interfered with, it is bound to result in faulty nutrition with its host of far-reaching consequences.

The importance of dental foci of infection has been definitely established as a highly contributing factor in the diseases of children.

It is only too evident, that dental service is a highly potent factor in the welfare of mankind.

This brings us, however, to today's greatest dental problem—the distribution of adequate dental service with its many economic aspects to people of moderate and low earning power.

The U.S. Chamber of Commerce tells us that the annual income of our population is divided as follows:

2 per cent. have an income of over \$10,000.

3 per cent. have an income of \$5,000 to \$10,000.

50 per cent. have an income of \$2,000 to \$5,000.

45 per cent. have an income of less than \$2,000.

If our profession is to attain the highest goal of useful service, then it must devise ways and means of providing dental service for this 95 per cent. of the population who earn only a modest income. The solution of this problem involves a number of highly important factors:

1. The highest quality of service must be maintained.

2. Dental service must be produced at a lower cost in order that fees may be brought within the reach of a far greater number of patients.

3. The dentist must receive an adequate compensation for his services.

Does it not seem that the most logical and practical approach to our problem lies in an expansion of existing facilities for producing dental service through:

1. The development of greater executive ability on our own part?

2. The development of a highly efficient organization of capable, well-trained assistants and hygienists?

3. A more efficient and systematic management of our practices.

4. Increased facilities for efficient production.

5. Extensive educational publicity regarding the beneficial results of adequate dental care? The "sob-mongers of the so-called new era" tell us that a large percentage of our population cannot afford dental service even under normal economic conditions. This is just pure plain unadulterated bunk. The trouble is, too many people regard the need for dental service as just so much "tough luck" rather than a necessity in our modern civilization. Another difficulty is, that after their time payments on all purchases are made, there isn't much left over for dentistry. When the public

realizes the value of, and desires dental service, more than the hundred and one unnecessary things they buy, then the dental economic problem will be approaching solution.

If dental practice is to fulfil its responsibilities in full measure, then it must grow and develop from the limited one-man set-up to a highly efficient, carefully co-ordinated unit capable of producing not only the highest quality of service but an increased availability of service in its respective community. Ours is a big job with much to be accomplished, yet one with tremendous opportunities for worthwhile service. Each one of us has a definite individual responsibility in the solution of the collective problem of meeting the increasing need for dental service. Who can better solve this problem than the dental profession itself?

The opportunity is ours—what will we do with it? We cannot stand still, we must progress. Stephen Girard once said, "No bank will ever be a success until it has a president who takes it to bed with him at night." It is exactly the same with our work. If we put little effort into our work, our reward will be small. But, if we put a full measure of creative effort into it, our rewards will be great. It calls for vision, inspiration, enthusiasm, study, thoughtful application, self-improvement, hard work and plenty of it.

So, let us remember our responsibilities, which carries with it not only a desire to serve but the opportunity to be of service and the developed ability to serve. Our reward will be better mental, moral and physical health, more self-respect, greater respect of our fellow-men, larger financial rewards, the realization of an ideal, and the greatest degree of true happiness. — *Released through Committee on Co-operation of the American Association of Dental Editors.*

• ANOTHER PAVLOV EXPERIMENT

By H. SHERIDAN BAKETEL, A.M., M.D.,
Rutherford, New Jersey

YOU remember Pavlov's experiment; how he rang a bell every time he fed a dog. After a while, the dog's gastric juices flowed whenever he heard the bell, even if there wasn't any food.

A similar experiment is now being conducted in the United States. The administration is playing the role of Pavlov. Its propagandists are the bell-ringers. The public, of course, is the dog. It is being fed exaggerated promises of what socialized medicine would accomplish.

Repeated ringing, it is assumed, will deafen the lay ear to the advantages of private practice. Echoing state medicine's "benefits," it is hoped, will make them seem real. Once socialized medicine is "in," the food can be taken away; the promises can be forgotten, but the political structure created will remain.

As yet, the public has shown no particular appetite for this Sovietized dish, so it has been ordered that the bells ring louder.

It was learned last month, from a Public Health Service employee, that a special publicity staff is to be hired, presumably to focus national attention on the subject. Several other drives will be given impetus at the same time; they have no apparent connection with the general program, but they will dovetail with it nicely when the time arrives to strike for national health insurance.

Meanwhile, the bell-ringers are grinding out survey after survey. All drum the "need" for a "national health program" (i.e., state medicine). After a while, through sheer repetition, the public may believe them.

The recent report of the President's Technical Committee on Medical Care is typical. This is a survey in name only. It was undertaken at the President's ex-

press order. He told the committee to justify "co-ordination of the activities of the government in these fields." The very title of the committee's report, "The Need for a National Health Program," shows how dutifully instructions have been followed.

The report promises that government participation in medicine will reduce maternity deaths and rheumatic heart morbidity by 66 2/3 %; infant and tuberculosis mortality, 50%; syphilis morbidity, 95 %; poliomyelitis, malaria, cancer, diabetes, and occupational illnesses, proportionately. No scientific basis for these figures is offered. They are presented merely as prophecies. And, of course, they are qualified throughout with phrases like "could," "may be," "might be."

But the effect is the same as if they were specific guarantees. The layman is not apt to read them too meticulously. He often takes such flimsy theorizing at its face value. The government said it. The newspapers printed it. Ergo, it must be true.

Thus is the public being conditioned to accept something it doesn't need and from which it will suffer by having.—*Editorial in Medical Economics, April, 1938.*

• VITAMIN K.

DAM and his co-workers in Copenhagen first suggested that a deficiency of an accessory dietary factor is concerned in the experimental production of generalized hemorrhage of certain animals. This dietary factor has been termed vitamin K and has been shown to occur in fairly wide distribution in nature. Dam found that the substance was of a fat soluble type and that hog liver oil, cabbage, spinach, tomatoes and alfalfa were effective in supplying this deficiency. Cod liver oil, wheat germ oil, carotene, cevitamic acid, egg albumin

and ultraviolet irradiation were ineffective. Of the grains used, alfalfa proved to be the best source of the vitamin.

The so-called vitamin K occurs in the nonsterol fraction of the unsaponifiable fat and is not identical to vitamins H or D in chemical properties and physiologic action. The K factor more closely resembles vitamin E in solubility and resistance to heat. However, wheat germ and wheat germ oil, which contain large amounts of vitamin E, fail to protect animals from hemorrhage caused by dietary deficiency.

Subsequently Almquist in California showed that alfalfa meal was a fairly good source of vitamin K. He isolated it from this material and described a procedure for concentrating the antihemorrhagic factor. He obtained sufficient amounts for experimental trial and demonstrated that general hemorrhagic conditions of deficient chicks could be rectified by adding this material to the diet. — *Excerpt from article by A. E. Osterberg, Ph.D., Division of Biochemistry, Mayo Clinic; appearing in Proceedings of Staff Meetings of the Mayo Clinic. February 2, 1938.*

• FRESH, RAW AND COOKED FOODS

THE vitamin B and G content of fresh peas; raw, cooked and frozen has been a point of conjecture because of various conditions in technique and material. This has been cleared rather effectively by Rose and Phipard in the *Journal of Nutrition*.

Fresh raw peas contained approximately three Sherman Chase units of vitamin B per gram, a rich source, whereas fresh lima beans contained but half that amount. The peas of the same season showed no loss in freezing but revealed a 26% loss after cooking for 15 minutes. Peas of two seasons differed by almost 100%. When the peas and beans

had matured, approximately half the potency remained.

Seedling peas showed a loss of over 50% of the vitamin B, but a surprising synthesis of vitamin G. Locality as well as maturity played a great part in the variations.

In both fresh, raw peas and beans, the vitamin G content was one Sherman-Bourquin unit per gram with no loss in cooking or freezing and little loss in maturity.—*Medical Times, Sept., 1937.*

• CANNED FOODS

WITH the discovery of the vitamins, the question or value of cooking of foods was raised. Canning of foods for sterilization purposes requires more thorough cooking. Kohman, Eddy, White and Sanborn in the *Journal of Nutrition* state that cooking in canning need not be considered deleterious to vitamins and that canning promotes greater consumption, thus enhancing the vitamin intake.

In the experiments carried out three series of animals were used: one group being successive generations; another consisting of one generation, and the third a group in rapid growth after weaning. In this manner, possibilities of hereditary and lacteal performances effects were eliminated.

The evidence from the experiments indicated no inherent virtues in raw foods and that cooking does not necessarily incapacitate nutrient elements. On the contrary, it has beneficial effects on physical structure and texture of foods and inactivates plant enzymes which are oftentimes detrimental to the handling of foods. Canned foods represent the raw product in its prime and thus present a unique means of distributing perishable foods with sufficient inherent nutrient qualities preserved. Such foods also afford an efficient form of calcium.—*Medical Times, September, 1937.*

• ORAL HYGIENE

AS a focus of infection the teeth stand first in order of importance.

The cost of illness, loss of time and necessary medical and dental treatment incident to dental disease would, if it could be adequately estimated, represent a staggering sum of money.

With tooth decay present in from 90 and 97 per cent. of our school children, with almost one hundred per cent. of the adult population affected by some form of oral disease, with the appalling average loss of teeth by decay and extraction,

with comparatively little effective restoration, with but 25 per cent. of our population receiving little or no care, in truth, the oral disease problem is unsolvable by the common methods pursued thus far.

Dental disease outruns dental care; the latter cannot catch up. Dental care cannot solve the problem of dental decay. On the other hand, oral hygiene scrupulously applied, cannot but prove a balancing weight under those circumstances wherein nutrition is not all that it should be.—Iago Galdston, M.D.—“Review of Dentistry for Children”, per New Zealand Dental Journal.

SIDE GLANCES

By George Clark



"I've got rid of most of her freckles, straightened her teeth, and bought her a new permanent—but still she looks like her father."



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

Editor—M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN



F. C. Harwood, Moose Jaw

NOVA SCOTIA



A. W. Faulkner, Halifax

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgecombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

Public Dental Clinics

In this issue of the journal, Dr. Rose, of Saskatchewan, outlines some of the problems involved in the functioning in that province, of school dental clinics under government control. While the conditions enumerated are deplorable, Dr. Rose received, eventually, some compensation for his efforts. Due to the faulty system, the work was admittedly below standard, yet, on the whole, these children received some beneficial health service. While the difficulties in regard to this type of problem have been vividly outlined as they exist in Saskatchewan, somewhat similar problems exist in all of our provinces.

The point which gives the writer particular concern is the fact that, when the request for service came to the dentist, he was made to feel that if he did not acquiesce, his reputation as a public-spirited citizen would suffer, and that his practice would be injured in consequence. In recent times, frequently a newspaper clipping reaches our editorial office, announcing that some public-spirited organization, such as a Red Cross unit, some Service

Club, or women's organization has decided that it would be a fine idea to start a dental clinic for the underprivileged child or adult. A few hundred dollars are collected which are sufficient to supply only indifferent equipment and the dentist is expected to give his services gratis. If he refuses, he fears possible repercussions upon his practice, which in recent years may not have been in too sound a condition. In too many cases he does not refuse, but in many instances submits, in order to ward off what seems almost akin to blackmail.

The social leader says that the medical doctor gives much of his time gratis to hospital service, why should not the dentist do likewise? He fails to realize that the dental problem is in no way comparable. The average insurance owned by physicians on this continent is \$19,699 and by dentists, \$7,606. The per capita income of physicians and surgeons in the U.S.A. in 1929 was \$5,403; in 1934, \$3,570; while the dental income in 1929 was \$4,564 and in 1934, \$2,501. Statistics are not available for Canada, but the relationship between the two professions is probably similar, in spite of the amount of time given to hospitals by physicians. In other words, the dentist is not in an equal position financially, to be able to give much of his time gratis to any cause.

The physician joins a hospital staff and gives some of his time, and reaps a very definite reward in experience, and in professional contacts, which the dentist does not receive from his service at a public clinic.

Owing to the nature of a dentist's duties, he is unable to work as long hours as a physician. He is under greater expense than the physician; in fact the whole picture is entirely different. Even the physician has not a clear conception of this fundamental difference, and until this situation is better understood, it is difficult even to discuss the matter on common ground. If a dentist could sit in a chair and make a diagnosis and write a prescription, how different it would be from the physical strain of bending over a dental chair, hour after hour, operating on nervous patients. Every procedure in operative dentistry is time-consuming and exacting. The practice of medicine and the practice of dentistry are so dissimilar that no comparison can be made in this respect.

Another phase of this problem, too often overlooked, is one which recently has been brought forcibly to our attention by Professor Burt, editor of the New Zealand Dental Journal, in which he says, "A nation is not strong because its citizens are many. It is quality that counts and no increase in the number of tainted lives can possibly add to the strength and well-being of a community. Every care should be taken to ensure that the sum of human efficiency and fitness is not diminished under the mask of emotion and philanthropy." Some thought from this angle should be given to the urge for public service.

I am not disparaging the splendid and worthy public service tendered

gladly by many of our men throughout Canada, nor the need of well-organized clinics to care for the dental requirements of the less fortunate, but I do plead for a true appreciation of all the factors by those interested in this field of endeavour, so that the dentist will no longer be taken advantage of, as he is now, in many sections of our country.

It is difficult, if not impossible, for an individual dentist, or small group of dentists to fight this octopus, but it would not be sufficient for a well-organized, national group of dentists to face the issue, and enlighten the public as to the just course to follow in matters of this kind. When these problems have increased, and we have become sufficiently aroused, perhaps we will agree to support adequately our national organization, the Canadian Dental Association, and give to it the authority to deal with, and try to solve, the many urgent problems facing the profession of dentistry in Canada. The time has arrived for the dental profession, as a national unit, to do its own thinking, and make its own plans, for the benefit of the profession as well as for the public which it serves.

CORRESPONDENCE

Dental Data Desired

To the Editor of the Jour. of the C.D.A.

Readers who are interested in the physical background, past or present conditions relating to dentistry, will confer a great favour on the undersigned, by sending the following information direct. Conditions, past and present, in isolated communities, island, torrid, frigid, etc., are especially desired information.

I. Who were your earliest known people, historic or prehistoric? What did they look like? Describe skull, profile, size, shape, and condition of jaws and teeth. Did they have: worn teeth, caries, pyorrhea, missing teeth, impactions, etc.? Send specimens or photographs, illustrative of described conditions.

II. Your primitive dental practices; did they include tooth staining, filing, filling, inlaying (ornamental), polishing, extracting

(with what instruments), restoring lost teeth, magic, shamanism, voodooism, or any other unusual practices? Send specimens or photographs.

III. Your modern dentistry: Who were its founders, when, where did they live, work, die? What education had they, what was their greatest work? Does your dentistry include: dental degrees (which), board examinations, specialties, all modern methods? Is there any state control of practice, fees, or governmental payment for services? Are dentists (a) busy? (b) well paid? Are there professional associations or societies? If so, do all belong?

Sincerely,

Kent Kane Cross, D.D.S., M.A., F.I.C.D.
2355 East Evans Avenue,
Denver, Colo., U.S.A.

Of what avail is it to a dentist to perfect himself in his work, if in so doing he entirely entirely loses contact with the world socially? Why make better and better dentures for fewer and fewer patients?—Jacob L. Chivian in Essex County D. Soc. Bul.

NEWS FROM THE PROVINCES

ALBERTA:

Alberta Dental Association

Concluding the annual convention of the Alberta Dental Association, held the end of May in Edmonton, the following members were elected to the Board:—

President—Dr. L. V. Janes, Edmonton.

Immediate-Past-President—Dr. W. A. Adinell, Ponoka.

Vice-President—Dr. A. M. Palmer, Calgary.

Representative to D.D.C.—Dr. J. M. Dixon, Calgary.

Representative to C.D.A.—Dr. C. M. Fletcher, Lethbridge.

Member of Board—Dr. H. M. McCaffery, Brooks.

Secretary-Treasurer-Registrar—Dr. R. A. Rooney, Edmonton.

Next year's meeting will be held in Calgary.

SASKATCHEWAN:

Saskatchewan Dental Convention

The Convention of the Saskatchewan Dental Society was held in Hotel Saskatchewan, Regina, May 29-31. The Convention opened with a delightful reception tendered the visitors by the Regina dentists and their wives, in the Blue Lounge of the Hotel on Sunday evening, May 29.

The formal opening of the Convention took place Monday morning, when, after registration of the delegates, Dr. W. H. Ross, President of the Regina Dental Society, acted as Chairman and introduced Mayor Ellison of Regina, who welcomed the out-of-town visitors of the city. The Chairman then introduced Dr. W. H. Newlove, of Saskatoon, President of the Saskatchewan Dental Society, who welcomed the members of the Society and thanked the Regina Dental Society members for their work in preparing for the Convention.

The principal guest and clinician of the Convention, Dr. Clayton A. Swanson of Minneapolis was introduced and gave a very instructive lecture on "X-ray Interpretation" illustrated by a large number of lantern slides of practical cases. Dr. Swanson is Chief of Dental Surgery in the Minneapolis General

Hospital and a member of the well-known Nicollet Medical Clinic in Minneapolis, and came well qualified by training and broad experience to discuss this subject.

Later, Dr. Swanson gave a practical clinic on the Fournet-Tuller method of impression—taking for stabilizing full lower dentures, and obtained a spectacular result. On Tuesday, Dr. Swanson gave an interesting clinic on the treatment of fractures of the maxilla and mandible, using numerous x-ray negatives and photos to illustrate the methods used, some of which were new to those in attendance. Dr. Swanson also read a very comprehensive paper on "Physical Factors to be Considered in Making a Dental Diagnosis." All of Dr. Swanson's work was of a high standard and was much appreciated.

Tuesday morning eight Saskatchewan dentists gave table clinics on the following subjects, which created a great deal of interest:—

1. W. W. Irwin—Consulting Clinic on Orthodontia.

2. A. M. Lowey—Treatment of Fractures of Mandible, using "Ivy" loops.

3. A. F. Muirhead—Children's Dentistry with special reference to space retainers—Inlays of Low Cast Metal.

4. F. C. Harwood—Jacket crowns of Gold and Porcelain.

5. J. E. Wright—A Gold Inlay for Lower Anteriors. A specific for Vincents.

6. A. J. Clark—Gold Foil.

7. W. H. Ibberson—Exodontia. Illustrated with slides.

8. R. N. Grant—Synthetic Porcelain Restoration of Incisal Angle.

The lighter side of life was not neglected during this Convention. The program for the Men's Luncheon, Monday noon, was in the hands of the Moose Jaw Dental Society, when Dr. W. W. Senlin was in the Chair and Mr. W. M. Rose, K.C., gave an interesting address. Dr. F. C. Harwood conducted the community singing and sang a couple of solos for this program.

The Saskatoon Dental Society was in charge of the program for the noon luncheon on Tuesday, with Dr. M. J. McDonnell in the

Chair. Dr. M. R. Parkin, Regina, led the community singing and contributed two fine solos. The speaker for this meeting was Miss Ruby Simpson, Reg. N., O.B.E., Director of Public Health Nurses, under the Department of Health of Saskatchewan. Miss Simpson gave a splendid report of the work done under the direction of her Department, working in co-operation with the nearest dentist, where possible, in conducting practical dental clinics in schools remote from a dentist. These clinics have been financed by contributions from the School Board, the Provincial Government, the Canadian National Hygiene Council and the Saskatchewan Dental Council. During the four years these clinics have been in operation, 10,977 children from 596 rural schools have been cared for dentally, at an expenditure of \$13,986, all of which went to the dentists for services and materials. These clinics brought together, effectively, children in urgent need of dental care who could not have been otherwise contacted, and many dentists in rural areas in need of cash patients.

Monday night was given over to a dinner and dance, for the dentists, their wives and assistants. Dr. Thomson, the new President of the University was present and spoke briefly. A varied program was rendered following the dinner. Dancing was enjoyed until a late hour.

Tuesday afternoon was given over to golf competitions and to inspecting the plant of General Motors. In the evening a Stag Dinner was held when the golf trophies were presented. The wives of the visiting dentists were well entertained by the Regina ladies, during the Convention.

The following officers were elected for the ensuing year: President, Dr. J. L. Connell, Prince Albert; Vice-President, Dr. V. M. Jackman of Strasbourg; Second Vice-President, Dr. J. A. Stewart, Maple Creek; Secretary, Dr. Milton Webb, Saskatoon; Treasurer, Dr. O. H. Bertrand, Radville.

The next Convention will be held in Saskatoon.

•
Dr. Van Woert Honored

Dr. F. S. Van Woert was elected president of the Regina Lions Club on June 6.

MANITOBA:

Manitoba Dental Association

The annual business meeting and convention of the Manitoba Dental Association was held in the Fort Garry Hotel, Winnipeg, on June 16. About 125 members of the Association were present, 20 being from country points in Manitoba.

The proceedings occupied the entire afternoon and evening. The afternoon sessions were addressed by Dr. Roy G. Ellis of Toronto and Dr. H. J. Merkeley of Winnipeg. Dr. Ellis is a native of Australia where he was graduated in dentistry and after several years' private practice came to Canada 10 years ago and secured his degree of Doctor of Dental Surgery from the University of Toronto, expecting to return to Australia. He remained in Canada, however, and is now an associate professor on the Faculty of Dentistry at the University from which he obtained his degree.

Dr. Ellis left Thursday night for Saskatoon where he will address the dental profession of that city. From Saskatoon he leaves for Edmonton, and from there he will fly into Aklavik to open a new dental clinic in the Anglican Hospital to give dental service to the native Eskimos, who are naturally immune from dental diseases until they come into close contact with civilization. Dr. Ellis will return to his college duties in September, and each succeeding summer a dentist will be sent to Aklavik for two months to continue the service and research work begun by Dr. Ellis.

After a dinner in the Fort Garry, golf prizes won at the competition at Pine Ridge Golf Course on Wednesday were distributed to the winners of the various events, Dr. C. O. Wood, Dr. C. S. McLeod, Dr. R. A. McGillivray, Dr. H. J. Lawrence, Dr. J. O. Brown, Dr. P. J. Gallagher and Dr. N. S. Bailey.

Handsome pigskin gladstone bags were presented to Dr. Ellis and Dr. Merkeley on behalf of the Dental Association by the President, Dr. N. S. Bailey of Portage la Prairie, who presided at all the sessions. After the presentation the business meeting was held at which reports were received from the President, Dr. N. S. Bailey; Registrar-Secretary, Dr. J. F. Morrison; Treasurer, Dr. E. L. White; and the chairmen of the various committees. For Public Dental Health, Dr.

W. W. Wright; Education, Dr. C. J. F. Jackson; Travelling Dental Clinics, Dr. A. E. Proctor; City of Winnipeg Dental Relief Clinic, Dr. J. H. Greenfield; Canadian Dental Association, Dr. M. H. Garvin, who is also editor of the *Journal of the Canadian Dental Association*.

ONTARIO:

The Ontario Dental Association Convention, May 1938

At the annual convention in May the excellent attendance of dentists from Ontario and other parts of Canada, would seem to indicate a very keen interest in dental matters. There is no greater stimulus to better dental practice than a well thought out and well organized dental convention. President Sydney Woollatt, with his executive and board of governors, must be congratulated on arranging one of the best that the Ontario Dental Association has ever held.

As has been reported before, there was an all time record attendance of Ontario dentists. What a splendid opportunity to discuss community dental health problems with representatives from other places, to hear problems and trends in modern practice, discussed by dental colleagues who have given intensive study to some phase of dental science in the hope of offering some helpful suggestions! There were demonstrations by dental nurses and assistants and there were on display many of the newer developments that dental manufacturers have created to solve our equipment and supply problems. All these features, coupled with the addresses of guest speakers and essayists, were welded together by an atmosphere of good fellowship, and indicate the direction of dental progress.

The two noon-day luncheons, complimentary to all members, were decided features this year. Excellent speakers addressed audiences of 600 each day. The opening day meeting was addressed by Mr. Duncan McArthur, Deputy Minister of Education in the province of Ontario. The association had as its guests at the head table those members who had graduated over 50 years ago—Dr. J. A. Shannon of Sault Ste. Marie; Dr. A. J. McDonagh, Toronto; Dr. W. Wunder, Toronto;

Dr. F. J. Stowe, Toronto; Dr. W. E. Willmott, Toronto.

Mr. McArthur, in his very able address, pointed out the necessity for a greater interest by our educated citizens in public matters of our day. There is, on every hand, a readiness to criticize governments, and at the same time an unwillingness to assume responsibility for constructive leadership. "Consider well your faith in democracy," said the speaker. "The democracy we enjoy to-day has been bought and won by the sacrifice of our forebears and if we wish for our children that same freedom of thought and action we ourselves enjoy, then we, as individuals, cannot afford to be indifferent. Maintenance of democracy depends on leadership, and if those best fitted for leadership fail to accept their responsibility, it is not hard to foresee results. Self-government must be founded on respect for the rights of others, and the efforts of self-government must be directed toward giving opportunity of gainful employment especially to our youth." Continuing the speaker said, "In our schools must be laid the foundations of an understanding of our existing institutions which have served us so well in the past and are still worthy of preservation. Our schools must develop an independence of thinking and judgment rather than a willingness to accept dictation; accordingly, with this in mind, this situation can only be worked out by our system of education and brought about by none but the best type of teachers."

The Public Dental Health luncheon was a feature of the second day. Dr. Ross Thomas was chairman and Dr. Christian P. Segard of New York was the speaker. Some of the guests at the head table were: Hon. Mr. H. J. Kirby, Minister of Health for Province of Ontario; Dr. B. T. McGhie, Deputy Minister of Health; Dr. John T. Phair, Chief Medical Officer of Health in Ontario; Dr. F. A. Kohli, newly appointed Director of Dental Services in Ontario; Dr. Gordon Jackson, Medical Officer of Health, City of Toronto, and Dr. Fred J. Conboy, Controller, City of Toronto. The large attendance seemed to inspire the speaker to his best efforts, and the meeting will be long remembered for its stimulating discussion. (Dr. Segard's address

will be published in this Journal in the near future.)

Guest essayists who addressed the convention were as follows:—

Dr. Edwin N. Kent, Harvard University—subject—"Office Management."

Dr. Paul Dudley White, Boston—subject—"Heart Diseases."

Dr. Frank Vedder, Ann Arbor—subject—"Fixed Bridges."

Dr. G. E. Tilton, Wichita, Kansas—subject—"Full Dentures."

In addition to papers, Dr. Vedder and Dr. Tilton gave lecture clinics for two hours each morning, demonstrating the principles they described in their papers.

One of the most interesting features of the present day dental convention is the array of table clinics. Here one can observe specialized technical procedures, and tricks in meeting intricate problems; indeed the field is so wide and varied that almost everyone finds the time too short to get around. Furthermore, perhaps the one who benefits most is the clinician himself who thoroughly prepares his material for presentation. Perhaps the finest demonstration given was by the prosthetic department of the University of Toronto, under the direction of Dr. F. M. Lott. It consisted of progress models showing step by step the technique for construction of a fixed bridge, a full gold crown, indirect inlays, a porcelain jacket crown preparation and the design and construction of removable partial dentures. The procedure was simplified, to be easy to understand, and the models were beautifully prepared and mounted. Dr. Fulton Risdon had a splendid series of radiographs showing evidence of extensive pathosis of the mouth and jaws, and as usual, he was on hand to explain the clinical conditions and surgical procedures involved in his own inimitable manner. Dr. George Morgan too, had an excellent series of dental x-rays for purposes of differential diagnosis of dental conditions, as well as a group of described models showing common dental abnormalities, mostly pathologic, which he presented as a scientific exhibit. Dr. Frank Jarman, Dr. W. J. Kerr, Dr. Aubrey Crich, Dr. W. L. Chalmers, Dr. Murray Robb, Dr. J. H. Johnson, Dr. W. S. Leslie and Dr. Gordon Frawley each presented some phase of exodontia,

surgery or anaesthesia that caused the dentist, in general practice, some concern at times, and each was willing and ready to discuss individual problems presented as a question. Dr. Gordon Cameron, Faculty of Dentistry, had two patients; one case demonstrated a typical "Lichen planus" and in differentiation the other presented "Leukoplakia". Lichen planus is a disorder commonly manifested by an eruption in the mouth of characteristic appearance frequently ensuing upon a severe emotional upset. Similar eruptions often occur on the skin of the limbs and body at the same time. Leukoplakia, on the other hand is produced by some irritant, often by smoking which in many instances becomes malignant. In connection with the study of oral lesions and oral pathology, Dr. Cameron suggests the latest work of Prinz and Grebaum as a reference everyone should have. Dr. Murray Campbell of Chatham demonstrated interosseous anaesthesia for cavity preparation; Dr. J. C. Devitt of Bowmanville, gold foil fillings; Dr. E. A. Grant, "Willett" inlays for deciduous teeth; Dr. F. C. Husband, Toronto, treatment of sensitive dentine; Dr. W. D. Clark of Hamilton, some stunts in lower denture construction. Dr. George Grieve discussed the orthodontic treatment of closed bite. He pointed out that the condition was in effect really an over-eruption of the anterior teeth and the treatment presented perhaps the most difficult orthodontia problem. Dr. Grieve promises to write a discussion for journal readers in the near future. In a lecture clinic, Dr. O. S. Clappison and Dr. F. M. Lott discussed the establishing of normal occlusion in closed bite cases by prosthetic means (using lantern slides). Dr. Lott described the causes of the condition as follows:—1. Loss of deciduous or permanent teeth. 2. Congenital absence. 3. Attrition. 4. Drifting. 5. Extreme occlusal pressure. 6. Lack of development. 7. Habit. Dr. Clappison's method of treatment followed closely Dr. Grubb's work of Cleveland, described in the January Journal of American Dental Association.

Dr. F. L. Kreuger gave a lecture clinic on root canal therapy, Dr. Gerald Smith a table clinic on root therapy by ionization.

Dr. S. Copeland presented a splendid lecture clinic on pinledge inlays and abutments, while Dr. Glen Mitton presented a unique

table demonstration of taking impressions and waxing inlays for anterior teeth. Dr. Herb Mercer of Allen & Rollaston dental laboratory gave an interesting discussion on ticonium, indicating the practicability of the alloy for precision castings to which gold clasps may be soldered. The metal takes a high platinum polish and has a specific gravity one-half that of gold.

Impression techniques for establishing stability of lower dentures seemed to be the outstanding attraction of the convention. Dr. Irving Ante of the Faculty of Dentistry, perhaps attracted the larger audiences. He used the principles illustrated by Dr. Tuller, but had many short cuts which made the method quite simple providing the operator was careful to observe the important features of the technique. Dr. Ante conducted a number of classes throughout Ontario and New York State in the last few months, and has established quite a following. In September he proposes to travel through Western Canada, to enable his western colleagues to enjoy this new method of taking lower impressions. Dr. Frank Martin also of Faculty of Dentistry, associated with Dr. Ante in evolving this modified Tuller technique, gave a practical demonstration, with a patient, for taking upper impressions. The Toronto East Dental Society representatives, Drs. Hoag, Bancroft, Grose and Flora, demonstrated, with a patient, the original Tuller compound impression technique with gratifying success.

The London Dental Society amalgam group—Drs. H. R. Sykes, J. F. Blair, H. L. Windrum, J. O. McCutcheon and J. F. Giffen, gave a progressive clinic in amalgam manipulation. Dr. F. J. Furlong of Windsor passed out a number of good hints in operative dentistry. Dr. J. M. Shultis demonstrated analgesia, with a patient, to quite large audiences of interested dentists. Dr. W. B. Amy conducted a question table in radiography and surgery. Drs. Corrigan, Stuart Grouch and Vernon Fisk gave a fine series of talks dealing with orthodontic problems which can be dealt with by the dentist in general practice. Dr. Leslie gave a timely lecture clinic, making a plea for dentists to train their sense of observation to look for other evidence of disease than pyorrhea pockets and cavities in the teeth. He illustrated how incipient cancer

can be diagnosed often by an alert dentist.

Drs. McDonagh, Alvin Snell, Ross Thomas and Charles Williams gave an excellent group discussion on periodontal treatment, simple and effective. Dr. Murray Dymont, in a table demonstration, illustrated a method of charting periodontal lesions.

There can be no doubt that the writer missed many other interesting presentations, but in the limited time available it is just impossible to see all the valuable material presented. The dental nurses and assistants go to a great deal of trouble in providing really interesting and worth-while material which no dentist can pass over without missing many suggestions useful in his office. Some of the young ladies giving demonstrations were—Miss Helen Campbell, Mrs. Ferna Cook, Miss Wilma Crane, Miss Helen Fletcher, Miss Gertrude Wiggins, Miss Gertrude Kidner, Miss Jean Morrow, Miss Loretta McGaughey, Miss Iverna Turner, Miss Dorothy Scott, Miss Tomye Turner. All of these young ladies must be commended for their trouble and enthusiastic effort.

No report of the convention would be complete without a word of praise to Mrs. Kenneth R. Harris and her committee of ladies, for their splendid assistance in arranging entertainment for out-of-town ladies and for the president's reception. This year 110 ladies registered at the convention and enjoyed a social time with their Toronto friends. The president's reception took the usual form of a dinner dance. During the evening Mrs. Harris was presented with some beautiful flowers on behalf of the O.D.A. members. Mrs. Harris' committee of assistants were—Mrs. R. S. Woollatt, Mrs. J. N. Stewart, Mrs. E. W. Paul, Mrs. G. V. Morton, Mrs. Robert Dunlop, Mrs. J. M. Sheldon, Mrs. H. W. Hoag, Mrs. E. C. Veitch, Mrs. Ross Thomas, Mrs. T. R. Marshall, Mrs. Roy Hendry, Mrs. W. B. Amy, Mrs. J. H. Duff, Mrs. Harvey Reid, Mrs. L. D. Drew-Brook and Mrs. W. J. Kerr. It was quite evident that more dentists brought their wives to the convention this year than ever before and no doubt the efforts of the ladies' committee, in providing an appealing program for their out-of-town visitors, will be conducive to a still larger attendance next year.

And so it goes. The convention has come and

gone for another year and those who attended will be the first to say—"It was a tremendous success."

—T. R. M.

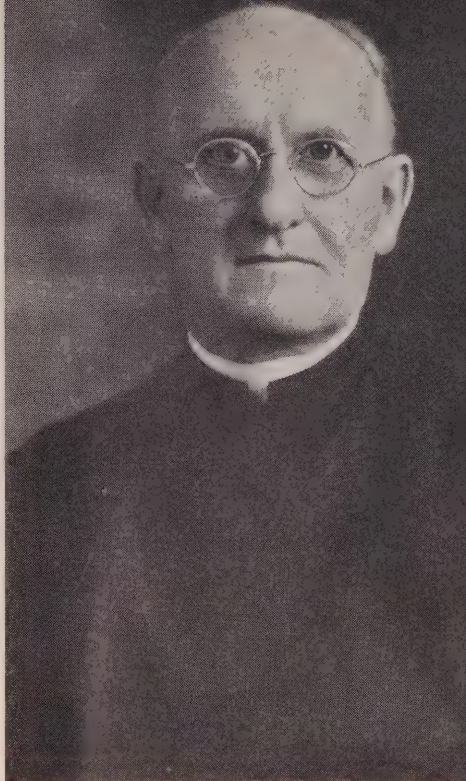
**William Ernest Cummer, D.D.S.,
F.A.C.D., C.S.B.**

The climax to a career of singular achievement came to Dr. William Ernest Cummer on June 11, 1938, when he was ordained to the priesthood in St. Michael's Cathedral, Toronto. He enjoys the distinction of being one of only four dentists, according to historical record, who has at any time attained this high honour in the Roman Catholic Church. Father Cummer is widely known and indeed much beloved by a host of dental colleagues, not only on this continent but in Europe as well.

Fr. Cummer was graduated in dentistry in 1902 from the School of Dentistry of the Royal College of Dental Surgeons of Ontario. He was born in Hamilton December 4, 1879, and received his early education in that city. As a boy, with his family, he was a member of Wesley Methodist Church in Hamilton, and a member of its choir. His love of music led him to the services of the Anglican Church, and thence from the High Church of England to an ever-increasing familiarity with the Catholic rites. In 1916 he joined the mixed choir of St. Basil's Church and was converted to the Catholic faith. In 1917 Fr. Cummer was received into the Catholic Church.

During these and following years his dental attainments are noteworthy. In 1905 he became a demonstrator in the School of Dentistry of the Royal College of Dental Surgeons. In 1907 he was raised to the rank of professor which title he retained with increasing responsibility until 1931 when he resigned to become Dean of the School of Dentistry, University of Detroit. This latter distinction he retained until 1933 when he resigned to enter St. Basil's Novitiate to prepare for the priesthood.

As a teacher and a writer in dental prosthesis, Fr. Cummer is known in dental literature throughout the world. He was connected with the teaching of Dental Science in Toronto for 25 years; he is a licentiate of the Dominion Dental Council, and a member of



REV. FATHER W. E. CUMMER

six dental societies. He served in the Canadian Army Dental Corps. He received the degree of F.A.C.D. in 1927. He was associate editor of many publications including the "Appolonian" of Boston. He has given over 130 lecture demonstrations in United States, Canada and Europe. He has written a number of articles for the Canadian Dental Research Foundation and prepared material for a number of prosthodontia text books.

Somehow dental science did not seem to satisfy Fr. Cummer's heart's desire. There was always a craving for something more. The first step in satisfying this craving came when he entered the congregation of St. Basil. His great love of music seems to have been the medium which has ever led him on and on to greater heights in his ambition. As a chorister he has sung in St. James Anglican Church, Toronto, under Dr. Albert Ham, also Dr. Ham's National Chorus; in St. Thomas Anglican Church Choir, under Mr.

Richard Tattersal, and in St. Basil's Catholic Church Choir under D'Avignon Morel, and later in Schola Cantorum under Dr. Phelan, director. Indeed Fr. Cummer is also a very accomplished organist, as well as a vocalist.

Interest and participation in church music eventually led to a realization and love of the mass as a form of musical composition, and so it was that Fr. Cummer finally sought admission to the church of which he is now a Priest.

In July, 1933, Dr. Cummer was bereaved of his wife. He is, however, the proud grandfather of two children. His daughter, Mrs. José Calvillo, resides in Detroit. His father, Mr. William L. Cummer, is living in Toronto. Thus Fr. Cummer is a member of four living generations. Dr. Harold H. Cummer of Toronto, is a brother of Fr. Cummer.

Fr. Cummer will sing his first solemn high mass in early fall.

C.D.A. Delegate

Dr. G. L. Prestien of Galt has been appointed a delegate of the Canadian Dental Association.

Dentistry for Eskimos

Dr. Roy Ellis of the Faculty of Dentistry, University of Toronto, leaves for Aklavik, Alaska.—Aklavik is 140 miles inside the Arctic Circle, situated on an island at the mouth of the McKenzie River. He is going to Bishop Fleming's Hospital, flying in from Edmonton on June 21st. Edmonton is just the half way mark between Toronto and Aklavik. During the summer Dr. Ellis expects to render dental treatment to white people numbering 60 to 75, Indians about 200, and Eskimos 400. The dental equipment was purchased by friends of Bishop Fleming last July and was sent to the hospital. Dr. Ellis appeared before dental societies in Winnipeg, Saskatoon and Edmonton on his way West.

London Dental Society Honours Dr. Stephen A. Moore

In paying homage to Dr. "Al" Moore, as he is affectionately known to his friends, the London Dental Society did honour to itself. The Highland Golf Club at London was the

setting for the occasion and June 16th the date. Representative dentists from all over central and western Ontario were invited and joined in this long to be remembered function. The following made brief addresses: Toastmaster Dr. S. M. Kennedy, Dr. E. C. Veitch, Dr. J. N. Stewart, Dr. F. M. Lott, Dr. E. T. Guest, Dr. E. W. Paul, Dr. Sydney Woollatt, Dr. W. B. Amy, Dr. Neil Smith, Dr. J. M. Brick, Dr. C. B. Taylor, Dr. "Al" Lester, Dr. Earl Fuller, Dr. Ross Thomas.

It would be difficult to record all the pleasantries spoken in eulogy and tribute to the honoured guest. It was said of him that he is known well and favourably throughout the profession in Canada. He is an able administrator, possesses a rare quality of judgment and is unselfish to a degree. He is fair in his dealings with everyone, is industrious and has a faculty of seeing through to a successful conclusion the tasks he undertakes. He serves the profession to make it finer and nobler and more respected; he sees in it the best opportunities for public service. He is congenial, honest and has a wholesome respect for another's opinion, yet frank and fearless in pursuit of noble enterprise — indeed a worthy colleague to the President of our Canadian Association.

Dr. Moore has served the profession well. He graduated in 1919 and began practice in London. In his specialty of orthodontia he ranks with the best. For a number of years he was secretary of the London Dental Society, then he became its president. He has served 10 years in the Ontario Dental Association, being its president in 1933. He has served 7 years as delegate from Ontario to the C.D.A. and this year becomes its president. He, with Dr. M. H. Garvin, initiated the publication of this journal and from its inception has held the responsibilities of business manager. Was it any wonder that one speaker said, "He is the living expression of the finest type of professional achievement."

Dr. Moore's address in reply was typical of himself. He thanked his friends for all the nice things they had said and done, then launched into an expression of his hopes and plans for that which is dear to his heart—the Canadian Dental Association. He made a masterly plea for the support of all organized dental groups, large and small, wherever

located. "Provincial and district societies have a most important part to play in their respective communities," he said, "and our national association has no intention of encroaching upon their field of endeavour. It only seeks the active, wholehearted support of Canadian dentists so that it can speak for dentistry in Canada."

Written on one corner of the banquet programme were these fitting words—

"To keep his standard always high
To find his task and do it
This is his creed, and we all know
He shapes his actions to it."

Dr. Earl Fuller presented Dr. Moore with two pieces of fine leather baggage.

Mrs. Frank Giffen, assisted by other London ladies, entertained the visiting ladies at her home by giving a garden party.

Dental Nurses Alumnae Association of Toronto

A bridge and fashion show was held at the I.O.D.E. headquarters in April which was attended by 200 guests. Proceeds will be used for furthering dentistry for underprivileged children.

In May a complimentary dinner was tendered the graduating class of dental nurses at the Granite Club.

At the final meeting of the year, the retiring President, Miss Nan Braidwood, presented the alumnae with a hand-carved gavel. The new officers for 1938-39 are as follows:—

President—Miss D. Collett.

Vice-President—Miss M. Joyner.

Recording Secretary—Miss A. Lindsay.
Corresponding Secretary—Miss P. Appleton.
Assistant Corresponding Secretary—Miss A. Cowling.
Treasurer—Miss K. Andrews.
Committees:—
Social—Miss E. Crerar.
Visiting—Miss E. Smith.
Membership—Miss M. Alexander.

QUEBEC:

Fourteenth Annual Fall Clinic
under the auspices of
The Montreal Dental Club
Mount Royal Hotel, October 12-14

"Full and Immediate Denture Service"—

Dr. John B. LaDue, Chicago, Ill.

"Porcelain Veneers and Pontics"—

Dr. Ralph C. Cooley, Houston, Texas.

"Root Canal Therapy"—

Dr. Ralph F. Sommer, Ann Arbor, Mich.

"Periodontia"—

Dr. C. H. M. Williams, Toronto, Ontario.

"Children's Dentistry"—

Dr. Gustav C. Tassman, Philadelphia, Pa.

"X-Ray Diagnosis"—

Dr. LeRoy M. Ennis, Philadelphia, Pa.

Topic discussions, Table Clinics, Post Graduate Classes, Golf Tournament, Luncheons and Dinner Dance.

Fall Clinic membership fee, including two luncheons, Resident, \$10; Non resident, \$5.00.

For preliminary program, please communicate with the undersigned.

DR. F. A. EDWARD,

Medical Arts Building, Montreal.

EMPIRE NEWS

GREAT BRITAIN:

Hero

Dr. Harry Stark, of Stoke Newington, at the age of 35, had reached what most of us would call "success."

He had a very good practice; his patients loved him.

Dr. Stark died last week. He died in the most unspectacular way a man can die—in bed.

But he gave his life for a patient whom he probably scarcely knew.

Dr. Stark contracted blood poisoning from

the patient. The patient still lives. He is cured.

Next time you say, "Oh, the doctor's bill can wait," think of Dr. Stark.

Some day YOU might kill your doctor.

—*Sunday Dispatch, London.*

AUSTRALIA:

Dental Research

Last year the Commonwealth Government established a National Health and Medical Research Council and Parliament has recently voted a grant of £30,000 to this body, which

has representatives from the Commonwealth Health Department, the Universities and the British Medical Association.

It is generally understood that up to £5,000 per annum will be available for dental research, but no grants will be made unless the Council is satisfied concerning the ability of the Research Fellows. Junior Fellows are to be paid at the rate of £500 per annum, and Senior Fellows up to £1,000 per annum. Grants for special equipment may be made.

The Dental Research Department of the University of Melbourne has received three grants for the year 1938: half time fellowship to continue to work on the Sterilization of Dentine; half time fellowship to work on the Drift of Teeth; and a full time technician,

whose duties will be to assist the research fellows and also the staff of the Research Department, in routine investigations.

This move was made by the Commonwealth Government and will be under the direction of the Director-General of Health. It represents a very generous acknowledgment of the importance of dental disease in relation to national health and the necessity for research along these lines.

The various dental schools of the Commonwealth, either have equipped or are equipping departments, so that for the first time in the history of the Commonwealth organized research, financed by the Government, will be carried out.—*Excerpt from the Australian Journal of Dentistry, March, 1938.*

GENERAL NEWS

Dominion Dental Council Examination Results

Below is a list of the successful candidates who wrote examinations May, 1938:

- | | | |
|--------------------------|----------------------|----------------------|
| Akins, W. J. | Feagan, H. S. | Munthe, Jens. |
| Allen, Harvey A. | Feasby, R. E. | McColl, Robert G. |
| Archibald, J. Lewis. | *Fraser, W. N. | MacDougall, D. H. |
| Averback, Maxwell J. | Fyffe, Alberta E. | McGuigan, James C. |
| Bajurny, Frank J. | Fyffe, E. D. | McIntyre, D. F. |
| Beattie, J. P. | Godfrey, Norman T. | *Naiditch, Leon W. |
| Benson, Charles A. | Goffin, Douglas. | Neilson, J. W. |
| Biglow, James Alexander. | Goldberg, L. S. | *Nevin, Hillard R. |
| Brown, J. A. C. | Goodison, Claude D. | *Osbourne, Clark. |
| Cameron, R. Bruce. | Goodman, A. L. | *Page, Geo. Harvey. |
| Campbell, A. H. | *Goodman, Samuel. | Parrott, Fred W. |
| Campbell, Geo. D. | Green, Fred S. | Passalis, James. |
| *Chechik, M. M. | Greenfield, Alan. | Purves, James D. |
| *Christie, J. A. | Grey, H. Spencer. | Reid, R. D. |
| Christie, Philip S. | Harder, Abram. | Reid, R. N. |
| Claener, M. | *Hancheroff, Wm. W. | Reynolds, Clifford. |
| *Clark, W. L. | Hardy, Morley G. | Riben, Peter. |
| Clarke, John M. | *Harnish, W. E. | Richmond, J. E. |
| Collins, M. J. G. | Hildes, Lyonel S. | *Rogers, T. L. |
| Cook, Andrew F. | Hogg, Wm. G. | *Rumberg, Joseph B. |
| Cordone, Joseph | Holmes, Lionel S. | Schumacker, E. L. |
| Cornish, Charles M. | Hunter, H. A. | *Scott, W. R. |
| *Creasy, George. | Hutchison, R. Craig. | *Sklar, Edward. |
| Cragg, T. K. | *Jackson, Wm. Ivan. | Smeaton, Wm. B. |
| Craigie, Lawrence Glen. | *Jones, Franklin W. | Smith, Jas. L. |
| *Crummie, O. W. | Kaukinen, Arne B. | Sproule, J. B. |
| Danzinger, Geo. W. | Kitchen, P. F. | Strokon, Michael. |
| Day, John Rutherford. | Kushnerov, Ben L. | Veitch, E. Bruce. |
| deLagran, G. A. | Lackie, F. C. | Warriner, Jack. |
| Dickson, R. E. | Loaring, Ernest H. | Weicker, C. Merrill. |
| Dixon, Campbell. | *Ludwig, Joe. A. | Werry, S. Geo. |
| *Diner, Allen. | Macdonald, John B. | *White, C. A. |
| Dowd, J. R. | *Milburn, W. B. | *Wilson, D. Taylor. |
| Drummond, J. R. | *Millar, I. A. L. | Wilson, Verdun B. |
| *Egan, C. J. | Mintz, David. | Wollcott, Wm. |
| Elliot, W. L. | *Moore, Kenneth A. | Yankovsky, L. |

NOTE—Those with a * sign before their names have completed the full examination.

Dental Hygiene Course

A 2-year course for dental hygienists replacing the present 1-year curriculum, has been authorized by the regents of the University of Michigan. The new course will offer training in technical procedures with a view to making the hygienists more useful as assistants to dentists, and will transfer the instruction in anatomy, bacteriology, and chemistry from the dental faculty to the regular course given for nurses.

From: School Life, U.S. Department of the Interior, May, 1938. (A.D.A. News Release Service.)

Health Conference

A Conference to consider the major needs of the nation in the fields of health and medical care has been called to meet in Washington, U.S.A., July 18.

A.D.A. Poster Contest

The meeting of the American Dental Association in St. Louis, October 24 to 28, will provide a worthy setting for the climax of the greatest dental educational effort ever promoted by organized dentistry—the national poster contest.

When leaders of the profession and some 11,000 dentists from all parts of the country, are assembled in the great St. Louis Municipal Auditorium, the national prize winners will be selected.

The national significance of the contest can be readily gauged by the fact that three leaders in American child health work have agreed to act on the board of judges. They are: Surgeon General Thomas Parran, of the United States Health Service; Miss Katherine Lenroot, chief of the Children's Bureau, Department of Labour and the Hon. James L. Feiser, vice-chairman of the American Red Cross.

Splendid testimony to the success of the contest will be afforded by an exhibition in the auditorium of the 5,000 outstanding posters from cities and towns throughout America.

Those who attend the St. Louis meeting will see in this exhibition the graphic story of dental health education—in oils, water colours, crayon, and cut-outs—as created by the school children of the nation.

Here will be the fruition of an idea which caught the interest of educators from coast to coast, and brought a response, from pupils, which stands unexcelled in school history. The contest was the principal feature of the A.D.A. 1938 educational program: "Dental Health for American Youth."

The idea was conceived by Dr. C. Willard Camalier, and followed through by the National Poster Contest Committee and the committees of 300 state and component societies, who co-operated to bring about these splendid results:

1. More than 1,000,000 school children, in 35 states, participated in the contest, and studied all phases of preventive dentistry in their endeavours.

2. Approximately 500,000 original posters were submitted, and displayed in 300 districts.

3. In ten months, a total of 2,000,000 persons were reached with the dental health message of the posters.

4. Uncounted additional millions of children and adults were reached with the message, through the hundreds of newspaper accounts of the local and state contests.

Some idea of the vast work, done by the component society committees, may be gained from the central office of the national poster committee. More than 70,000 copies of the rules were distributed, and 20,000 reprints of the winning Minnesota posters of two years ago, were furnished, as well as mimeographed copies of suggestions prepared by the St. Louis Dental Society—more than 95,000 pieces of contest literature in all.

From the 5,000 top-notch posters on display at St. Louis, the board of judges will select the fifteen national winners.

Five first awards, five second awards, and five third awards will be made in as many group classifications. In addition, a set of Encyclopedia Britannica will be awarded the schools represented by first prize winners, in each division. Total prizes awarded in the national, state and district competitions total about \$3,500.

The success of the contest can best be measured by the results themselves—and by the striking panorama which the exhibit at St. Louis Auditorium will provide.

Furthermore, Dr. Lon W. Morrey, of public relations, reports:

"From all parts of the country we have received enthusiastic requests that the poster contest or something just like it, be a part of the A.D.A. program annually.

"We have every reason to believe that when the membership gathers at St. Louis and sees the amazing work accomplished by the young folks of the country, this idea will be vigorously carried forward.

Every member of the Association who can come to St. Louis, in October, is urged by the national poster contest committee to see the poster exhibit. The committee declares:

"We congratulate Dr. Camalier for conceiving the idea. We thank the members of the state and component poster committees for the efficient manner in which they executed the idea. The American Dental Association is indebted to America's educators for their wonderful co-operation."

Dental Insurance in Utah

Sponsored by the politically-powerful local Farm Bureau, Weber County, Utah, was last month watching an experiment in prepaid dental care. For a life membership fee of \$35, plus a per annum charge of \$20 per family, Weber county families were paying money into an organization calling itself the Weber District Health Association, and were guaranteed dental care including semi-annual examinations, x-rays, prophylaxis whenever needed, amalgam and synthetic porcelain fillings, extractions, and advice.

Gold inlays, gold fillings, and dentures are to be provided at cost. The Association is sponsored by laymen; the co-operation of the local dental society, proffered in an effort to retain control of dental services by the profession, was refused. The Association has opened offices in Ogden where it employs a dentist at \$200 per month to render the dental services. A lay manager sells contracts, and collects money.—*Dental Survey*.

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

Edgar Lyon Gansby, Toronto, Ontario, aged 62, died May 30, in the General Hospital. He was born in Guelph and graduated from the Royal College of Dental Surgeons in 1900. After graduation he was articled to the late Dr. Mills. His wife predeceased him by only six weeks. He was a member of St. Clements Anglican Church.

Dr. Gansby is survived by two sons.

his death he was the oldest practising dentist in Hamilton.

As a young man he was an enthusiastic trapshooter and was an active member of the Hamilton Gun Club at the time of its inception.

Dr. Baxter is survived by two sons, two daughters and five grandchildren.

•
D. T. Baxter of Hamilton, Ontario, aged 76, died from pneumonia on May 31. He was graduated from the R.C.D.S. and commenced practice in 1881 in Ridgeway. The following year he went to Niagara Falls and later moved to Toronto. In 1885 he opened up an office in Hamilton, and at

•
John A. Peterson of Waterloo, Ontario, aged 84, died in May. He practised dentistry in Grenfell, Saskatchewan, for 40 years. He has resided in Waterloo for the past three years.

Dr. Peterson is survived by his widow, one son, one daughter, one sister and three brothers.

. . . SECTION FRANÇAISE . . .

Rédacteur.

ALCIDE THIBAudeau, D.D.S., A.I.D.O.,

Professeur à l'Université de Montréal

516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Le Docteur Georges Villain

(1881-1938)

Connaissant bien la profonde sympathie de tous nos confrères canadiens pour le docteur Georges Villain, la direction de notre journal se fait un plaisir de lui consacrer le numéro de juillet.

Professeur honoraire de notre université, cet homme mérite d'être connu de tous. Aussi nous avons cru que le meilleur moyen d'atteindre ce but serait de publier presque en entier ce que le docteur Roy a si bien dit de lui dans l'Odon-tologie, no d'avril.

Une épouvantable catastrophe vient de nous enlever Georges Villain, directeur de l'Ecole Dentaire de Paris, foudroyé en pleine vie avec toute sa famille à l'exception de sa chère femme, grièvement blessée, mais non mortellement, et pour laquelle se déroule maintenant le plus cruel des calvaires.

La mort de Georges Villain est une perte irréparable pour notre Ecole, pour la science dentaire; elle sera cruellement ressentie dans tous les milieux professionnels, en France comme dans le monde entier, car notre si distingué collègue avait depuis longtemps conquis une estime et une réputation méritées par sa haute valeur professionnelle et les services éminents qu'il avait rendus à sa profession tout entière.

Nous n'avons pas de mots suffisants pour dire ici toute l'étendue de notre

douleur, nous tous, ses amis, ses collaborateurs qui avons été les témoins journaliers du labeur formidable qu'il a accompli avec un courage, un dévouement sans limite, pour le bien de la collectivité professionnelle, et qui fut, on peut le dire, un bon serviteur de l'humanité.

L'ACCIDENT

Georges Villain et sa femme avaient passé les vacances de Pâques dans leur propriété de Beauvallon, dans le Var, avec leurs enfants: Jean Villain et sa jeune femme, Claude Villain, avec son frère Henri Villain et sa famille et Mme Coquille, soeur de Mme Georges Villain.

Les vacances se passèrent, comme l'on pense, très joyeusement dans cette excellente famille ainsi rassemblée dans la charmante propriété de nos amis et, en rentrant à Paris, Georges Villain décida de faire avec sa voiture un crochet pour aller avec Mme Coquille voir le fils de celle-ci actuellement en traitement à Passy, dans la Haute-Savoie. Ce petit pèlerinage familial accompli, ils prirent, le 22 avril, la direction de Paris.

Il était 21 heures 15, l'auto avait dépassé Fontaine-bleau et était à la hauteur de Villiers-en-Bière, petit village sur la route nationale no 7; Georges Villain et ses deux fils occupaient la banquette avant, Jean Villain, l'aîné, tenant le volant; les trois dames occupaient la banquette du fond, Mme Georges Villain au milieu entre sa soeur, Mme Coquille et sa belle-fille, Mme Jean Villain.

Que se passa-t-il à ce moment? Nul ne le sait, mais ce qu'il y a de certain, c'est que le conducteur de l'auto aperçut sans doute trop tard un camion qui se dirigeait également vers Paris et qui était chargé de matériaux de construction et notamment de longues perches de bois dépassant de la carrosserie d'environ deux mètres. Emporté par son élan, le cabriolet de Georges Villain vint se jeter en plein dans l'arrière du camion et s'écrasa littéralement contre les perches qui le hérissaient comme autant de lances meurtrières.

Le choc fut d'une violence effroyable et cinq des occupants, Georges Villain, Jean et Claude Villain, Mme Jean Villain, Mme Coquille furent à demi décapités par les madriers saillants en dehors du camion tamponné; seule Mme Georges Villain fut grièvement blessée à la face par ces mêmes madriers, mais a survécu à cette effroyable collision. Elle fut transportée dans une clinique de Fontaine-bleau, puis, le lendemain, après une première intervention, dans une clinique de Paris, rue de Turin, où elle est actuellement.

Les corps des malheureuses victimes de cette horrible collision furent transportés par la gendarmerie à la Mairie de Villiers-en-Bière, commune sur le territoire de laquelle l'accident était survenu. C'est là, alignés sur des bancs à côté les uns des autres que, avec Mme Fould-Villain et son mari, soeur et beau-frère de Georges et Henri Villain (ce dernier encore à Beauvallon au moment de l'accident) nous avons trouvé les malheureuses victimes de cette catastrophe qui a anéanti tout une famille. Je renonce à dire l'impression de douleur effroyable que nous avons ressentie à cet affreux spectacle, qui frappait d'une douloureuse stupeur tous ceux qui étaient appelés à intervenir près de nos malheureux amis, qu'on juge des sentiments éprouvés par ceux dont elles étaient les parents les plus proches et des amis très chers !!!

Pauvre cher Georges, pauvres chers enfants, pauvre chère belle-soeur de notre directeur qui laisse trois orphelins!

Il fallut mettre dans leur cercueil ces chères victimes d'un drame atroce pour les ramener à Paris et nous avons vécu là une heure bien cruelle de notre vie.

Ensuite, les cinq corps furent transportés à Paris, au domicile de Georges Villain, 41, rue de la Tour-d'Auvergne, en attendant l'inhumation.

GEORGES VILLAIN SA VIE ET SON OEUVRE

Retracer la vie de Georges Villain, c'est revivre trente ans de notre vie professionnelle, trente ans de la vie de notre Ecole à laquelle il était si intimement lié que, depuis longtemps, son nom était attaché par tous à notre institution, comme l'était celui de son fondateur, Ch. Godon. Par l'exposé qui suit des diverses étapes de la vie de notre cher et malheureux directeur on se rendra compte de la place considérable qu'il a tenue dans une profession à laquelle il était profondément attaché et pour laquelle il s'est prodigué dans une mesure qui n'a jamais été dépassée.

Né à Paris le 21 mai 1881, Georges Villain allait avoir 57 ans. D'une famille modeste et ayant perdu son père de très bonne heure, il entra comme apprenti mécanicien chez notre ami George Viau, puis, son apprentissage terminé, alla travailler comme mécanicien-dentiste en Angleterre où il apprit la langue anglaise qu'il parlait d'une façon parfaite.

Revenu à Paris, il entra à l'Ecole Dentaire de Paris d'où il sortit diplômé en 1902. L'année suivante il était diplômé de la Faculté de Médecine de Paris.

Préparateur (1902), puis démonstrateur (1904) du cours d'orthodontie à l'Ecole Dentaire de Paris, Georges Villain préludait déjà dans la branche spéciale vers laquelle il devait plus particulièrement orienter ses travaux.

En 1905, Charles Godon, ami de son père, et qui fut, au point de vue professionnel, le père adoptif de Georges Villain et de son frère, pressentant la valeur en puissance chez son jeune pupille, l'engagea à aller compléter ses études aux Etats-Unis et s'initier aux méthodes d'enseignement de ce pays où l'organisation professionnelle avait atteint un point de développement supérieur à celui des autres contrées, afin de faire bénéficier, à son retour, nos institutions de ce qu'il aurait pu observer au cours de son séjour en Amérique.

Il partit pour Philadelphie et, en 1906, il était reçu Docteur en Chirurgie dentaire de l'Université de Pensylvanie (D.D.S.).

Revenu en France, il devint assistant d'Isaac Davenport, un des meilleurs praticiens exerçant alors à Paris, et reprit sa place dans le corps enseignant de l'Ecole Dentaire de Paris comme chef des travaux pratiques au laboratoire (1906).

Puis, brûlant les étapes, il passe brillamment le concours de Chef de clinique de prothèse (1907), le concours de professeur de clinique de couronnes et bridges et d'orthodontie, en 1908. Après un nouveau concours, il est, en 1909, nommé Professeur du cours théorique de prothèse, bridge et orthodontie, enseignement auquel il s'est consacré jusqu'à sa mort.

Déployant des qualités pédagogiques remarquables, il a donné à cet enseignement une direction scientifique toute nouvelle qui a puissamment contribué à faire sortir l'étude de cette branche de notre art des conceptions un peu trop empiriques sous l'angle desquelles elle était jusque-là trop souvent envisagée. Il laisse chez tous les élèves qu'il a formés une empreinte des plus profondes en même temps

qu'un souvenir douloureusement reconnaissant pour ce professeur à l'esprit clair, si plein d'enthousiasme, si affable pour tous les étudiants.

Entré en 1907 dans le Conseil d'administration de l'Ecole Dentaire de Paris, il y tient bientôt une place importante et après avoir été secrétaire général de l'Ecole de 1910 à 1919, il est en 1919 nommé Directeur de l'Enseignement.

Sous son active direction, les programmes sont révisés, coordonnés en vue de permettre aux élèves de profiter de la façon la plus parfaite de l'enseignement qui leur est donné; il a joué à cet égard un rôle important dans le développement de l'enseignement sur fantôme et dans l'enseignement général de la prothèse tant clinique que de laboratoire.

En 1920, il est nommé Directeur adjoint, puis en 1926, Directeur de l'Ecole Dentaire de Paris, poste qu'il occupait encore avec la distinction et le zèle que l'on connaît au moment de sa mort.

Il a été dans notre institution le digne successeur de son fondateur, Charles Godon et son nom sera très justement associé à jamais à celui-ci. Sans jamais ménager son temps ni sa peine, il s'est prodigué dans la plus large mesure possible pour maintenir toujours notre chère Ecole à la place prééminente que lui avait acquise son fondateur. Il veille avec soin à l'exécution du contrôle le plus strict et le plus sérieux des travaux effectués par les élèves, afin que reste toujours digne de son renom mondial le titre de Diplômé de l'Ecole Dentaire de Paris.

Auteur de très nombreuses communications à la Société d'Odontologie de Paris, il est nommé en 1913 vice-président et en 1920 président de cette société à laquelle il n'a cessé d'apporter le concours le plus actif; il y quelques jours à peine, à notre dernière séance, nous avons encore le plaisir de le voir nous présenter, sous forme d'incident de la pratique journalière, un petit procédé qu'il avait imaginé et qu'il fallait sa grande habileté technique pour réussir, en vue de réparer, sans le desceller, un bridge fixe dont une des dents piliers s'était fracturée.

Aujourd'hui même, dans le présent numéro de ce journal, n'est-il pas douloureusement émouvant de lire la sténographie de son intervention dans la séance du 1er février dernier où il nous apportait de si judicieuses remarques sur les questions d'orthodontie, domaine où ses travaux ont apporté tant de clartés.

Il laisse à cette société un bien grand vide qui sera longtemps et cruellement ressenti.

Travailleur infatigable, apportant une ardeur et une générosité sans égales dans la diffusion de ses idées basées sur des connaissances étendues dans tous les domaines de l'Art dentaire, Georges Villain a produit une oeuvre considérable; nous publierons dans notre prochain numéro la bibliographie de ses travaux, mais, malgré nos efforts, elle sera forcément incomplète, car trop souvent, il faisait oralement des communications scientifiques importantes que, malgré l'insistance des demandes qui lui étaient faites, il ne trouvait jamais le temps, dans sa vie si occupée, de mettre au point pour la publication.

Nous ne pouvons analyser ici les si nombreux travaux qu'il a présentés à la Société d'Odontologie de Paris et dans les différents Congrès français et étrangers, dont il était un hôte assidu et souvent l'un des organisateurs; disons seulement que, ayant spécialement dirigé ses recherches dans le domaine de l'orthodontie et de la prothèse, c'est surtout sur ces branches de notre art que portent ces travaux dont il nous suffira de rappeler, entres tant d'autres, ses multiples et remarquables études sur le *Mécanisme dentaire humain*, pour en souligner toute l'importance.

Ses travaux se trouvent publiés en grande partie dans *L'Odontologie* dont il était membre du Comité de rédaction depuis 30 ans; et c'est, pour le Directeur de ce journal, un bien douloureux devoir, au cours de cette notice nécrologique, de dire un dernier adieu à celui qui nous a apporté pendant ce long temps une si précieuse collaboration; son tragique départ est pour nous tous, à ce journal, un cruel déchirement.

Lorsque Charles Godon prit sa retraite, c'est à Georges Villain et à Léon Frey qu'il confia la direction de la *Bibliothèque du Chirurgien-Dentiste* qu'il avait fondée. Avec son co-directeur, G. Villain donna un grand développement à cette importante collection qui lui doit beaucoup et dans laquelle il a publié un premier volume de prothèse: *Principes généraux appliqués aux différentes prothèses*; dans cette publication il exposait les idées si intéressantes développées dans son cours et dans les nombreux travaux qui avaient fait l'objet de ses présentations dans les différentes Sociétés et Congrès. Ce premier volume devait être suivi de trois autres: *Clinique de prothèse dentaire à plaques*, *Cliniques de prothèse dentaire à pont, couronnes et bridges*, *Les différentes prothèses du laboratoire*. J'espère que nous pourrons, dans ses notes, trouver les éléments de publication d'une partie au moins de ces matières sur lesquelles Georges Villain était d'une compétence universellement reconnue et au sujet desquelles il avait apporté tant d'idées originales. Il meurt au moment où il venait, à la suite de la mort de Léon Frey, d'organiser une nouvelle direction de cette publication. Il laisse à ses collaborateurs le devoir de poursuivre seuls une tâche qu'il avait si bien continuée après son maître Godon, et ils ressentent bien vivement la perte qu'ils viennent de faire dans la direction de cette collection.

La part prise depuis trente ans par Georges Villain dans les différents congrès est prépondérante; vice-président en 1920 de la Section d'Odontologie de l'*Association française pour l'avancement des Sciences* qui représente le congrès dentaire annuel français, il est en 1921, président de cette section. Le congrès qu'il présida se tint à Rouen et reste comme une de nos réunions les plus intéressantes. Il est, depuis, président de la Commission exécutive de cette Section de l'A. F. A. S. et a pris ainsi une part des plus active à tous les congrès que cette Association a tenus depuis cette époque.

Président du Comité d'organisation du *VIIIe Congrès Dentaire International* qui se tint à Paris en 1931, il déploya dans la préparation de cette grande réunion une activité formidable et il fit de ce Congrès, qui groupa à Paris plus de 3,000 congressistes et dont il fut acclamé président, une des plus belles manifestations professionnelles que l'on ait vue. Grâce à Georges Villain, l'organisation en fut remarquable dans tous ses détails. L'ensemble considérable des rapports et travaux présentés dans ce Congrès a fait l'objet de deux gros volumes de plus de 3,000 pages dont G. Villain a assuré la publication après le Congrès. Cette œuvre représente un travail énorme et augmente la dette de reconnaissance que la profession dentaire lui doit pour ce Congrès dont le Comité d'organisation tint à le remercier dans un banquet où lui fut offerte une plaquette en bronze reproduisant ses traits et qui reste, aujourd'hui qu'il n'est plus, un de nos plus précieux souvenirs.

On trouve G. Villain dans toutes les réunions dentaires nationales ou internationales. Etant un des maîtres de l'orthodontie, au sujet de laquelle il a produit des travaux des plus remarquables et poursuivi une œuvre de vulgarisation des plus

persévérantes en vue de la prophylaxie des malformations dento-maxillaires, il est tout naturellement président du *Congrès d'orthopédie maxillo-faciale* en 1924, puis en 1933.

Il est également président de l'*European Orthodontological Society* en 1932 et préside en 1933 le Congrès de cette Société; Président de l'*International College of Dentists*, 1934-1937; vice-président de l'*American Dental Club of Paris*, etc., etc.

L'an dernier il a encore organisé en tant que président de la Fédération Dentaire Nationale, la partie scientifique du Congrès Dentaire National tenu à Paris.

Son activité était inlassable et jusqu'à ses derniers instants, il s'est prodigué pour sa profession. N'avait-il pas, en effet, abrégé ses dernières vacances de Pâques, cependant si nécessaires à son repos, pour se rendre à Utrecht où il devait faire, à nos confrères de Hollande, le lendemain de ce voyage qui se termina si tragiquement, une conférence qu'il avait préparée durant ses vacances.

Membre du Comité Exécutif de la *Fédération Dentaire Nationale* depuis 1907, il en est sans interruption le président depuis 1924; il y déploie son activité coutumière pour coordonner l'action des diverses sociétés et groupements réunis dans cette fédération, exerçant une action des plus efficace pour la sauvegarde de nos intérêts professionnels.

Membre du Conseil d'Administration de l'*Association Générale des Dentistes de France* depuis 1907, on le trouve toujours au premier rang dans l'étude et la discussion de toutes les questions d'organisation professionnelle ou d'enseignement; ces dernières questions lui tenaient particulièrement à cœur et, avec la compétence que lui confère sa longue pratique de l'enseignement, il a publié sur ces questions des travaux des plus importants où il expose des idées fort intéressantes et marquées de cet esprit de progrès qui a toujours caractérisé la vie de Georges Villain.

Il est délégué français à la *Fédération Dentaire Internationale* (F. D. I.) depuis 1908 et assiste à toutes les réunions que tient la Fédération à travers le monde; il prend bientôt une place importante: secrétaire adjoint en 1914, il en est secrétaire général en 1926, et enfin, en 1931, il en est nommé président. Internationaliste au meilleur sens du terme, il déploya dans ces diverses fonctions une activité remarquable et contribua puissamment à assurer à cet organisme mondial une grande vitalité; aussi la F. D. I., à l'expiration de sa présidence, le nomma-t-elle président d'honneur en reconnaissance des éminents services qu'il lui avait rendus et que depuis il a continué inlassablement de lui rendre. Notre ami Ch. Nord, de La Haye, secrétaire général de la F. D. I., a dit, dans le touchant discours qu'il a prononcé sur sa tombe et que l'on trouvera plus loin, ce que fut l'activité internationale de Georges Villain.

En dehors de la F. D. I., son action s'étendait partout. Pendant la guerre, il est chargé de missions par le Sous-Secrétaire d'Etat du Service de Santé, en Angleterre en 1916, en Amérique en 1918 et il fait dans ces pays une utile propagande française autant que scientifique. Il est de nouveau délégué par le gouvernement français aux Etats-Unis et au Canada en 1919, puis en 1933 à Chicago, au Congrès du Centenaire. Il avait été également délégué par le Gouvernement en Espagne en 1921.

Membre d'honneur de nombreux congrès étrangers, un grand nombre de sociétés étrangères avaient tenu à le compter parmi leurs membres honoraires, citons: l'*Association Générale des Dentaires de Belgique*, la *Société Odontologique Finlandaise*, la *Royal Society of Medicine* (section odontologique)

(Londres), la *Société Dentaire de Montréal*, la *Sociedad Dental de Caracas* (Vénézuëla), la *Dansk Tandloegeforeing* (Danemark), la *British Dental Association* (Londres), la *Société Hellénique d'Odonto-Stomatologique*, la *Academia de Estomatologia del Peru* (Pérou), la *Sociedad Odontologica de Valparaiso* et celle de *Concepcion* (Chili), la *Fédération Dental Mexicana*, la *Société Dentaire Nipponne*, la *Société Suisse d'Odontologie*, la *Kaiserlich Deutsche Leopold Carolina Akademie der Naturforscher* (Halle), l'*Union des Chirurgiens-Dentistes de Bulgarie*, l'*Association des Stomatologistes de Low* (Pologne), l'*Association des Dentistes Autrichiens*, etc.

Docteur en chirurgie dentaire (*honoris causa*) et professeur honoraire de l'Université Laval (Montréal), docteur ès-sciences (*honoris causa*) de l'Université de Pensylvanie, docteur en droit (*honoris causa*) de l'Université Loyola de Chicago.

Cette énumération permet de juger de la réputation mondiale que s'était acquise Georges Villain.

Il nous reste encore à parler du rôle qu'a joué notre directeur et ami pendant la guerre. Il trouva là, une fois de plus, l'occasion de déployer ses qualités techniques et d'organisateur. Attaché au Service de restauration maxillo-faciale de l'hôpital Michelet, de l'hôpital 112, à Saint-Ouen, il dirige le service de prothèse maxillo-faciale de l'hôpital canadien à Saint-Cloud et rend dans ses différents postes les services les plus dévoués et les plus éclairés, ce qui ne pouvait surprendre de la part d'un homme aussi compétent dans le domaine de la prothèse et de l'orthodontie, base si importante du traitement des blessés des maxillaires; il imagine, entre autres choses, pour les blessés ayant perdu une partie de la branche montante de la mandibule, une bielle articulée, dont le principe est basé sur ses travaux relatifs au mécanisme de l'articulation temporo-maxillaire et qui est restée classique. Bientôt un nouveau champ s'ouvre à son activité; il est frappé du nombre considérable d'hommes de troupe qui sont indisponibles du fait de l'état défectueux de leur système dentaire qui les rend incapables à faire campagne et il est l'initiateur des services de récupération des édentés, qui, par la suite, sont organisés aux armées et à l'intérieur; il en a créé le premier le Dispensaire militaire V. G. 88, qui resta le plus important de tous ces services et qu'il dirigea jusqu'à son départ pour l'Amérique en 1918, où, comme nous l'avons signalé plus haut, il fut envoyé en mission par le gouvernement. Grâce à cette initiative de Georges Villain, 225.000 édentés furent soignés et appareillés et purent être récupérés pour le service armé.

Secrétaire général du *Congrès Dentaire Inter-Allié* qui se tint à Paris en novembre 1916, il fut la cheville ouvrière de cette importante réunion qui permit de confronter les diverses méthodes de traitement des blessés des maxillaires et de la face dans les armées des pays alliés et de perfectionner les secours apportés à ces malheureux blessés.

Après avoir assuré la publication des comptes rendus de ce Congrès dentaire inter-allié, il fut par la suite fondateur et co-directeur de *La Revue Maxillo-Faciale* qui de 1917 à 1920 groupa tous les travaux relatifs aux blessés de la face.

Chevalier de la Légion d'honneur en 1923, Georges Villain était promu officier du même ordre en 1936. Il était en outre: Commandeur de l'Ordre d'Isabelle la Catholique (1925), Chevalier de l'Ordre de Léopold de Belgique (1933), Commandeur du Mérite Autrichien (1937).

Je viens de faire ainsi une rapide revue de la vie de Georges Villain et le

lecteur ne pourra qu'être confondu de l'importance de l'œuvre de ce grand travailleur qui, en outre de tout ce que je viens d'énumérer, avait encore à répondre aux exigences d'une importante clientèle professionnelle qui avait pour lui, et ce n'était que justice, la plus légitime considération.

Comment ne pas s'incliner avec respect devant une si belle tâche toujours si dignement remplie, car le caractère de Georges Villain était à la hauteur de son savoir. Esprit éclairé, âme ardente et généreuse, toujours éprise en toute chose du plus haut idéal, il était en outre profondément bon et délicat dans ses sentiments; en un mot, c'était une belle intelligence et un beau caractère.

Les diverses branches de notre Groupement, dans leurs prochaines réunions, rendront hommage à notre si cher disparu dont la perte si cruelle a été encore aggravée par les circonstances catastrophiques qui, avec lui, ont anéanti tous les siens; mais, dès maintenant au nom de tout le Groupement de l'Ecole Dentaire de Paris et de l'Association Générale des Dentistes de France et sans grandes phrases, qui seraient je pense bien superflues dans cette horrible circonstance, j'exprime au nom de tous, les sentiments de profonde pitié que nous inspire le sort de la femme de celui qui était notre directeur et notre ami et dont la perte nous laisse tous inconsolables. Que notre douloureuse sympathie adoucisse si possible la peine de toute une famille qui comptait tant de membres attachés à notre Ecole et notre pensée va en particulier, à notre cher collègue Henri Villain, à son fils, le Dr Roger Villain et Mme Roger Villain, tous deux diplômés de notre Ecole, à notre si sympathique confrère, Mme Lucie Fould-Villain; qu'ils trouvent ici, ainsi que tous les leurs, l'expression de l'affliction profonde dans laquelle nous sommes plongés par un événement qui met en deuil notre institution, et la profession tout entière; l'une et l'autre elles conserveront toujours avec la plus profonde reconnaissance la mémoire de l'homme qui s'est aussi largement dévoué pour elles.

MAURICE ROY.

With a deep sense of sorrow
and loss, the members of the
Canadian Dental Association
join with the members of the
American Dental Association,
in mourning the passing of
our great dental leader,
C. N. JOHNSON.



CHARLES NELSON JOHNSON, L.D.S., D.D.S., M.D.S., M.A., LL.D., F.A.C.D.,
HAS PASSED TO HIS REWARD.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, AUGUST, 1938

NO. 8

Development and Structure of Dental Mechanism*

What factors influence the growth, development and structure of the dental mechanism?

What bearing has the development and structure on future susceptibility to dental disease?

by G. VERNON FISK, D.D.S., Toronto, Ontario.

WHAT FACTORS INFLUENCE THE GROWTH, DEVELOPMENT AND STRUCTURE OF DENTAL MECHANISM?

THE question implies that growth is to be recognized as dimensional increase, while development is the series of changes taking place in the organism in passing from an embryonic condition to maturity.

It is universally recognized that the factors controlling the growth, development and structure of the dental mechanism are the same as those affecting the growth, development and structure of the organism as a whole. Probably the most outstanding of these influences are due to (1) heredity, (2) Glandular activity, (3) systemic disease and (4) nutrition. Let us say just a word then concerning each of these factors.

HEREDITY

If a child shows adequate developmental progress, failure to maintain average progress in dimensional increase or growth may be discounted as of secondary and possibly of hereditary significance. The influence of heredity, how-

ever, in its relationship to the growth and development of the teeth and jaws is a problem which invites further investigation.

GLANDULAR ACTIVITY

Retarded development of the jaws and teeth may result from disturbances of the glands of internal secretion. In such cases marked variation in the eruption time of the teeth are frequently observed. The glands which have the most marked influence upon the oral structures are the parathyroid, the pituitary, the thyroid and the thymus. In such cases there is need for co-operation in diagnosis between physician and dentist.

SYSTEMIC DISEASE

The frequent increased incidence of dental caries following illness is a commonly recognized condition. But this increased incidence of dental caries is not the only sequel of systemic disease. Growth and development of the jaws and teeth may also be affected. As the bones of the face appear to be particularly susceptible, any systemic disease which causes a growth disturbance is

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

likely to be registered in the jaws and teeth. Hypoplasia of enamel may be cited as evidence of severe disturbance during tooth formation. There is also evidence to show that enamel hypoplasia of the permanent teeth may be produced by apical involvement of the deciduous predecessors.

The so called Hutchinson's teeth used to be regarded as positive evidence of hereditary leues. More recently, however, it has been demonstrated that similar defects may be produced by small-pox, scarlet fever or any profound nutritional disturbances during the period of tooth formation. Many cases have been reported similar in all respects* to the typical Hutchinsonian incisors in which there can be found no leuetic taint.

Many systemic diseases have in their incipient stages characteristic oral manifestations which may be recognized by the alert dentist. There are cases in which co-operation with the physician is advisable.

NUTRITION

The same nutritional factors which are so essential to the maintenance of general health are equally essential to the oral structures.

Thus, from a consideration of these factors influencing growth, development and structure of the dental mechanism, the advantages of close co-operation between the professions of medicine and dentistry can readily be understood.

WHAT BEARING HAS DEVELOPMENT AND STRUCTURE UPON FUTURE SUSCEPTIBILITY TO DENTAL DISEASE?

In reply to this question, consideration must be given at least to two oral tissues: (a) the supporting structures, (b) the teeth.

(a) *The Supporting Structures.*

In general, observations made upon ancient and primitive skulls appear to be substantiated in the living; namely,

that those crania exhibiting well developed maxillae and mandibles with well-formed dental arches have a lesser tendency to periodontal disease than those crania with poorly developed structures such as are frequently associated with irregularly shaped dental arches and malposed teeth. It is, therefore, generally accepted that inadequate development and subnormal structure tend to increase susceptibility to periodontitis.

(b) *The Teeth.*

Dental caries, with its frequent resulting focal infection, is the most common of all dental diseases. At the White House Conference upon Child Welfare it was shown that 95 per cent of all children are affected by this disease. However, no relationship between caries and hardness of teeth has definitely been established. Nevertheless, it has been demonstrated that a tooth showing faulty development is more susceptible to caries. Faulty tooth tissue, however, may be rendered less susceptible through proper nutrition.

Zones of resistance surrounding incipient enamel caries have been demonstrated in microscopic sections. In addition, dentists have frequently observed the hardening of the floors of carious cavities to such an extent that the bottom becomes hard and polished. This has been described as healed decay. These two phenomena are no doubt, an indication of an attempt of the defensive mechanism of the body to combat the progress of dental caries.

Notwithstanding these important considerations, however, the two most effective means of combating dental caries at present appear to be oral hygiene and the metallic restoration.

It is evident, therefore, that development and structure have an important bearing upon susceptibility to dental disease.

170 St. George Street.

Development and Structure of Dental Mechanism*

What factors influence the growth, development and structure of the dental mechanism?

What bearing has the development and structure on future susceptibility to dental disease?

by GORDON C. CAMERON, M.D., F.R.C.P. (C), Toronto, Ontario.

THE questions which have been posed to me encompass the gamut of dental problems and in preparing this presentation I set out with the impression that the *answers* cannot be given. As I have proceeded, this impression has grown to a conviction and so I must content myself with an attempt to lay before you *considerations* which should influence us in assessing the merits of explanations which are from time to time submitted of the multiplicity of disorders which may affect the dental mechanism.

Assuming the ideal dental apparatus to be that of an individual who at the allotted span, or older, has all of his teeth in position for perfect occlusion and without defect of structure or attachment, we realize that the ideal is rarely attained and that there must be factors or a combination of factors almost universally operative which detract from our ideal. What these factors sometimes *are* and at other times *may be* it is my problem to epitomize in the short time at my disposal.

Humans have a "deciduous" and a "permanent" dentition. The evidence of tissue clearly segregated to form teeth is present in the embryo at the sixth week of gestation and the *anlage* of some permanent teeth is well established in the sixth month of gestation. The

teeth are composed of four special types of tissue, the enamel, dentine, pulp and cementum, none of which has an exact counterpart elsewhere in the body, and both ectoderm and mesoderm contribute to the production of these special tissues. Calcification of the enamel of all of the deciduous teeth is in progress at the sixth month of gestation and calcification of the enamel of many of the permanent teeth is established when the deciduous teeth are all erupted, at about two years. Here then, we have tissue that we may consider specially prone to influences which may be classified conveniently as *hereditary*, *congenital* and *trophic*.

The orderly sequence of "normal" dentition is such patent evidence of the hereditary influence that we are disposed to overlook it and tend to be more impressed by the hereditary occurrence of dental defect such as that recorded by Battersby (1) in a recent report of *anodontia* associated with ectodermal dysplasia. In this case report of absence of any evidence of teeth, the pedigree showed five generations to be affected. Others, including Darwin, have reported similar of comparable instances.

Congenital influence is distinct from hereditary influence and here the problem becomes more complex and accordingly more controversial. The classical

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

Hutchinsonian teeth as a stigma of intra-uterine infection need not be more than mentioned here to illustrate what *can* happen, but pregnant women are frequently the victims of other infections than syphilis which do not traverse the placenta. There is much support for the belief that the foetus is a ruthless parasite and *may* be born well developed and well nourished of a mother emaciated by famine or disease.

The trophic influences, in which I include the hormones and vitamins as well as the mineral elements of ordinary nutrition are factors which *can* operate probably more effectively during intra-uterine life than following birth, and yet we are discouragingly short of *proof* of what *does* occur in humans observed under well-controlled conditions of deprivations of any of these "essentials."

The problem here centres around the question as to whether the teeth can be included with bone matrix in the calcium phosphorus reservoir of the body. The answer to this is probably in the negative though I disclaim any fixity of opinion upon the subject. In this connection, disregarding pulp as being nothing more than a transport system for tooth nutriment, we have the three other tissues to consider. Histologically cementum more closely resembles bone than does either of the others, and this tissue being the site of rickets or osteomalacia, loose teeth free of caries would be the result. This I think does not fit clinical experience.

It seems to be true that dental caries begins at the surface of the enamel and as it progresses attacks the dentine. Embryologically and histologically enamel is more comparable to hair than to bone and on this basis it does not seem likely that it would, as does the bone matrix, give up its lime salts to maintain the blood plasma concentration of these substances at their proper level in

case of inadequate ingestion or absorption. The animal experiments of Gies (2) who stained the enamel of developing teeth by intra-peritoneal injection of vital dye and found that this staining was apparently permanent, lends support to the view that enamel is very close to being a fixed tissue. Then again, the observations upon humans who have ingested fluorine in excess during the period of calcification of enamel and have suffered the disfigurement of mottled enamel as a consequence, is probably the most convincing evidence that has been observed in humans.

There are many examples of patients with disorder of the glands of internal secretion whose dental apparatus is faulty in varying degree. Werner (3) e.g., illustrates cretins at the ages of 11 years and 15 years without permanent teeth. However, it is difficult to regard this dental defect as more than part of a generalized faulty metabolism wherein the ectoderm especially is involved.

SUMMARY

The complexity of the development of human teeth coupled with the fact that two embryonal layers are represented in four highly specialized types of tissue makes the teeth a common site of anatomical anomaly.

Hereditary influence is always a factor which does not lend itself to control.

Infection of the foetus can especially involve the teeth but maternal infection does not necessarily invade the foetus.

It would seem to be important, in view of the very early foetal development of teeth, that the mother's blood should be an adequate reservoir of lime salts and also of the vitamins and hormones necessary for their deposition during the latter two-thirds of pregnancy. If the maternal blood plasma is struggling to maintain its proper calcium phosphorus ratio by drawing upon the

bone matrix, one may assume that even the minimal amounts required for dental development may not be forthcoming. At birth none of the teeth are fully developed and it is reasonable to feel that the nutrition of the child is important to an equal degree.

The evidence at hand does not support the view that during such times of stress as pregnancy that lime salts are withdrawn from the teeth.

REFERENCES

1. Battersby, J. Ectodermal Dysplasia with Complete Anadontia. *Dent. Mag. & Oral Topics*. 1936. 53. 427.
2. Gies, Wm. J. & Collaborators. Studies of Internal Secretions in Their Relation to the Development and Condition of the Teeth. *J. Nat. Dent. Ass'n*. 1918. V. 527.
3. Werner, August A. Endocrinology—Clinical Application and Treatment. Philadelphia, 1937. Lea & Febiger.

What Effect Upon General Health Have Dental and Peridental Lesions*

by A. ALMON FLETCHER, M.D., F.R.C.P., Toronto, Ontario.

THE influence of these various dental conditions upon general health will depend upon the character of the infective process and the resistance of the reaction of the patient to this infection. It is probable that almost everyone harbours infection, usually in relation to some mucous membrane, and we know well that at times severe and extensive dental infection may be tolerated without any recognizable unfavourable result, yet at other times the clearing up of minimal infection appears to be attended with much benefit, therefore, while it is so that infection in any site of the body may act as a focus, judgment must be used in the adoption of radical measures in treatment.

It is not for me to discuss the probable significance of the individual oral lesions detailed in the question, but certain general principles may be mentioned. Sometimes dental infection is not a cause,

but an expression of ill-health. This is so, for example, in diabetes, pernicious anemia, malnutrition, and other forms of chronic ill-health, where the infection may be brought under control by the treatment of the patient as a whole. Curability of such infections is likely to be possible more frequently in younger individuals and when the infected lesion has not been long in existence.

It is not of much importance whether or not the infective process is closed or open, and I doubt if this question deserves the emphasis laid upon it. There is good reason to believe that secondary focal disease, such as rheumatic fever or rheumatoid arthritis, may be maintained at times by surface infection, such as gingivitis or pharyngitis. A much more important consideration is the vascularity of the infected area, which will to a large extent determine the ease of absorption. Infection is a much greater

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

menace to health when situated in highly vascular tissue. I further doubt whether positive cultures from teeth are of any value in evaluating the seriousness of dental disease. The streptococcus viridans is a normal inhabitant of the oral cavity and it is likely to invade fairly healthy dental structure. The recovery of such an organism should have no bearing upon the questions at issue.

When a decision is to be made as to the probable significance of dental disease, we have to consider,—is the individual in good health, or is he suffering from some disease. In those in good health we have continually to keep in mind his ability to withstand some degree of chronic infection. There is, as has been said, undoubtedly much individual variation. Broadly speaking, those who are young appear to tolerate infection better than those who are old, and the likelihood of relief of infection by non-radical remedial measures is greater. Infective processes that have been present a long time are not by any means safe, and it is an occasional experience that an infected tooth which was well walled off when the patient was young, now is the site of bacterial or toxic invasion. When the patient is ill, new questions arise. Is there any evidence, in the first place, that the illness is related to focal infection? Many forms of arthritis are not focal in their origin. They may be metabolic, such as gout, or degenerative, as senile arthritis, and infection play little or no part in their course. There is no doubt that many would be saved much unnecessary vigorous dental treatment, or for that matter, the removal of infected foci of doubtful character, elsewhere, if care

were taken to make sure that the patient's symptoms were secondary to infection. The possible existence of multiple focal infection has to be borne in mind, and lesser degrees of dental disorder may be discounted, when there is some other infective process from which more toxic or infective absorption may take place. On the other hand, when we feel sure that the ill-health of the patient is secondary to some focus of infection, and when careful and adequate survey has been carried out to exclude any other likely source of disease, it is in these cases that importance may be placed on minimal dental infection. It is in just these cases that dentist and physician are likely to "cross swords." Certain people seem to over-react to exceedingly little infection, and it is reasonable to suggest to the dentist that he might, at times, be prepared to find the physicians putting unexpected significance on infection which the dentist knows well many are able to carry with impunity. Finally, both physician and dentist might well observe caution in the interpretation of results of radical dental treatment. Any operative measure may exert a temporary influence upon the course of disease, particularly the different rheumatic affections, and yet have no causal relationship to their development. Such improvement may be due to a non-specific protein reaction. Similarly, vaccines, autogenous or otherwise, may for a while appear to help these patients, but yet be of no permanent value.

After the removal of any questionable focus, many weeks should elapse before any final answer is arrived at as to what part a focus of infection may play as a cause of systemic disease.

If a man finds himself with bread in both hands, he should exchange one loaf for some flowers, since the loaf feeds the body, but flowers feed the soul.—Eastern Proverb.

What Effect Upon General Health Have Dental and Peridental Lesions *

by EDMUND T. GUEST, D.D.S., L.D.S., Toronto, Ontario.

WE FIND such a variety of opinion in the controversy which has raged for so long over the relation of dental and peridental infections to general health, that it almost seems the more we study the problem the more confused we become; but it is possible to indicate certain facts on which there is agreement, and certain conclusions which seem reasonable.

I think we can agree that *if* infection *does* exist in the mouth, and toxins *are* produced, this infection and these toxins can be transported to other parts of the body, there to cause disease.

This transportation may take place in the following ways, 1. *Continuity of structure*—For example, infections of the upper teeth may extend until the maxillary antrum is involved or the vessels and other parts immediately concerned with the eye. The direct connection between infections of the upper anterior and bicuspid teeth and the eye is well recognized.

2. *Swallowing of bacteria and toxins and other septic products.*

It has been shown that tonsillitis, pharyngitis, and various gastric and intestinal disorders, as well as a general toxic condition have been caused by the swallowing and ingestion of bacteria and their products.

3. *Aspiration*—May produce laryngitis, tracheitis, bronchitis or pneumonia.

4. *Absorption by the lymphatics*—May cause adenitis and cellulitis, with abscess formation and septicemia.

5. *Transportation by the blood stream.*

Bacteria from a primary focus can be carried by the blood stream to every part of the body. Not all of them cause secondary disease. Most of them are either eliminated from the body in the ordinary process of elimination, or are destroyed by the defensive mechanisms of the blood and body. But many find lodgment in a vulnerable tissue, and a secondary diseased condition is created.

Rosenow's Theory of Elective Localization suggests that the selection of the tissue or organ that thus becomes invaded, depends on the type of organism found in the primary focus. Rosenow's findings have not been satisfyingly confirmed by other investigators, and are doubted by many authorities.

Other observers and investigators suggest that the area of secondary localization depends on individual susceptibility—either an inherited tendency toward vulnerability in certain organs, as in those families that show an unusual incidence of disease in heart, kidney, vessels or other organs, or a particular susceptibility resulting from lowered resistance, either general or local.

But I think we can agree that *if* infection *does* exist in the dental and peridental tissues, it *can* cause disease elsewhere in the body.

Now let us consider *where* and *how* infection can occur in these tissues.

1. *Oral Sepsis*—By oral sepsis we mean the superficial diseased conditions of the mouth caused by dirt and infec-

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

tion harboured in the mouth by carious teeth, broken down teeth and roots, and collected around faulty dental restorations, such as improperly constructed crowns and fixed bridges, and fillings which are imperfectly contoured and finished.

Oral sepsis is not as common as it used to be, and is found only in the mouths of those who neglect the sanitation and care of the mouth in an extreme degree, or those who have been receiving improper or inadequate dental treatment. Oral sepsis is so easily recognized and so easily corrected that there is not the slightest excuse for its existence or continued tolerance.

It is often pointed out that it was concerning oral sepsis that William Hunter uttered his celebrated blast in October 1910, and it is suggested that Hunter was not talking about focal infection, as we understand it to-day, that what he said cannot be cited as evidence against pulpless teeth, but applied entirely to these superficial diseased conditions which *we* call oral sepsis. This is only partly true, because it seems likely that Hunter grouped all dental sources of infection, whether superficial or deep seated, around the root-ends of pulpless teeth, or in the alveolar sockets and around the roots—the so-called pyorrheal infections—under the general term of oral sepsis—and did not give that term the restricted meaning that we give it to-day. Indeed in his published paper he actually uses the words "deep seated alveolar abscesses."

I think, however, that it can be definitely stated that oral sepsis as we understand it is a serious and prolific cause of ill health.

2. *Periodental Infections*—diseased conditions of the tissues surrounding and supporting the tooth—acute and chronic gingivitis—periodontitis and periodontoclasia. It is scarcely necessary to point

out the infective and poisonous possibilities of this source of infection.

It has been said a severe case of periodontitis may involve an ulcerated area of from three to five square inches, and an ulcer of such extent in the alimentary tract (as of course it is) is not to be ignored.

This is a source of infection that is often overlooked, because unless there are acute or extreme manifestations the significance of periodental infections is often under-estimated. We can see, nevertheless, how these conditions combine the superficial significance of oral sepsis with the blood-stream infection possibilities of periapical infections, so that infection and toxins may be transported, not only by swallowing and aspiration but also by lymphatic absorption and actual transportations by the blood-stream.

PERIAPICAL INFECTIONS

There is a great difference of opinion regarding the role of the pulpless tooth, and the presence or significance of periapical infection. On the one hand we have the so-called hundred percenters who take the extreme view that all pulpless teeth are a menace—that all such teeth should be extracted, and that pulp canal operations should never be attempted.

On the other hand there is the extreme conservative school of those who seriously question whether pulpless teeth *can* cause any secondary disease. They challenge the whole theory of focal infection; they point out that Rosenow's work has not been confirmed and is rejected by many authorities. They deplore the wholesale extraction of teeth with pulp involvements and urge us to practise conservative root-canal therapy in the treatment of these teeth.

The radicals point to long, long lists of cases where a variety of diseases have

been cured or alleviated following the removal of pulpless teeth. They say—"This man had rheumatism, he had a pulpless tooth extracted, his rheumatism got better, therefore the pulpless tooth must have caused the rheumatism."

Some of them try to prove from that, something about *all* pulpless teeth, or *all* rheumatism, and the conservatives reject this reasoning. They say—"Your evidence in circumstantial and inferential—not scientific—you have proven nothing." Then they also submit evidence in favour of the pulpless tooth that is equally unconvincing. They suggest that because many people have had pulpless teeth extracted and their secondary condition has shown no improvement, and because many people are carrying pulpless teeth without any impairment of their general health, that *all* pulpless teeth are harmless, and they question the whole concept of focal infection. I suggest to you that both these extreme positions are erroneous.

It is not necessary to extract *every* pulpless tooth, simply because some of them—many of them—are sources of infection. It is not necessary to reject the whole concept of focal infection simply because *some* pulpless teeth, in the mouths of *some* patients, have apparently remained innocuous.

What are the facts upon which we can agree?

I think we can agree—

1. That infections *can* and do exist around the apices of some pulpless teeth.

2. That an opening into the pulp chamber and root canal of a tooth is a break in the body integument, and may furnish an avenue whereby pathogenic bacteria gain access to the blood stream and may be carried to every part of the body.

3. That the significance of these conditions and their pathogenicity depend,

to a large extent, on the resistance of the individual concerned.

4. That those pulpal and periapical infections are a primary source of infection, that *can* cause and in many cases *do* cause disease elsewhere.

5. It is possible to treat a pulpless tooth so as to render it harmless, provided that the root canal is rendered sterile and hermetically sealed with an adequate root filling which will prevent the ingress of bacteria to the periapical area—that is, that there be no break in the body integument.

In connection with root canal operations it should be recognized that our cases should be selected with great care. Such operations are contra-indicated in patients with impaired resistance. Such operations are contra-indicated when it is a physical impossibility to clean the canal properly, to penetrate to the apex, and place a mechanically perfect filling.

Root canal operations must be carried out under strictly aseptic conditions.

Grossman in a recent article in defence of the pulpless tooth accepts these limitations and contra-indications, and goes further and states that root canal operations should not be done for patients having arthritis, rheumatic fever, iritis, and cardiovascular or renal diseases, or for patients having leukemia, syphilis, active tuberculosis or diabetes.

Now if we accept all these limitations and contra-indications for our new operations (and I think we should) then I think we should accept the same limitations with regard to old root-canal operations, and should advise the extraction of all pulpless teeth with root fillings that have not met those conditions, or cannot be made to meet them, and we should advise the removal of all pulpless teeth from patients having the various diseases mentioned above.

But I suggest that we do not accept the view of the so-called hundred per-

centers—but that we recognize that in the hands of *some* operators, and in the case of *some* patients, it is possible to place certain selected pulpless teeth in a safe and healthy condition.

In the recognition of dental and periodental conditions that may cause impairment of the general health, and the evaluation of their significance, a definite

and detailed diagnosis ought to be made, to differentiate between healthy teeth and diseased teeth, between those hopelessly diseased and those amenable to treatment, and it should constantly be born in mind, that it is not always necessary to render a patient edentulous to protect him against dental infection.

120 Bloor Street East.

You cannot take the kingdom of pleasure, any more than you can take the kingdom of beauty, by storm. You cannot take it by storm, and you cannot purchase it with dollars. Pleasure, in fact, is not a house that can be built with men's hands; it is like a flower that surprises you, a song which you hear as you pass the hedge, rising suddenly and simply in the night and dying down again.

Pleasure is a by-product, like coke. Pursue it directly, and it will elude you. Throw yourself body and soul into your work, devote every atom of your energy to a cause, lift yourself up out of the selfish little pit of vanity and desire which is the self, by losing yourself in something which is greater than the self, and on looking back you find that you have been happy.—C. E. M. Joad in "Nash's."

Conventions

AMERICAN DENTAL SOCIETY OF EUROPE, STOCKHOLM, SWEDEN, AUGUST 1-3.

K. C. Campbell, Secretary, 88 Portland Place, London, W.1., England.

EASTERN ONTARIO DENTAL ASSOCIATION, KINGSTON, ONTARIO,

SEPTEMBER 26-27.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,

MONTREAL, OCTOBER 12-14.

TWENTY-FIFTH ANNIVERSARY MEETING OF THE AMERICAN ACADEMY OF PERIODONTOLOGY, CORONADO HOTEL, ST. LOUIS, MISSOURI,

OCTOBER 20-22.

Those interested in Periodontia are invited to attend this program of scientific papers and clinics.

Raymond E. Johnson, Secretary,

824 Lowry Medical Arts Building, Saint Paul, Minnesota.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

14TH GREATER NEW YORK DENTAL MEETING, HOTEL PENNSYLVANIA, NEW YORK CITY, DECEMBER 5-9.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office," 314 Somerset Building, Winnipeg.

*A Treatise on Dental Office Practice**

by W. N. MILLER, D.D.S., Flint, Michigan, U.S.A.

(Continued from the July Journal)

CONTACTS OTHER THAN PERSONAL

TELEPHONE conversations of a business nature are "rapid-fire" contacts where the mutual inability to see facial expressions places greater emphasis on the necessity of being trained in voice inflection and appropriate phraseology. Train your telephone voice to liquid, dulcet tones, and coach your assistant to answer the usual questions quickly, courteously, and kindly. Never let her say "The Doctor is busy now." Instruct her to answer, "I'm sorry, Mrs. Doe, Dr. Blank is just where he cannot be disturbed for a few minutes. Will you leave a message or may I call you again?" Implication must be made that if it were possible she would like to comply with the request to call the doctor to the phone.

Have your assistant inquire the name of the secretaries of your habitual phone contacts and make a list of them. Acquaintance between secretaries permits them to handle much of the interchange themselves.

In the matter of correspondence, there is no end to the variations of opportunities to heal misunderstandings, induce patients to come in for regular prophylactic treatment, encourage the re-

ferring of new patients by acknowledging references made, and stimulating revenue by "thank you" letters for prompt checks. In addition, I would recommend for the dentist who feels downtrodden that he use some of his spare time reading the current dental magazines, and writing letters of appreciation to the contributors. If his self-appraisal is not altered favourably within thirty days, he must indeed be a hopeless crab.

It is quite probable that only a small percentage of dental offices are consistent in their acknowledgment of referred patients. Of those who do pride themselves on a definite plan, the majority dispose of this duty in the easiest way, which is to have a printed form upon which the assistant may write the name of the patient referred and sign the dentist's name, with her initials.

I am sure that if the personal touch of individuality could be given to each acknowledgment, a certain subtlety of compliment would be conveyed which can never accompany the printed form. To those patients who have referred several other individuals or families to us, the receipt of another printed form holds little significance, while a personal

*Presented before the Academy of Dentistry at Toronto, March 29, 1938.

note from the dentist would be quite another matter.

It is for this reason that I would urge those dentists who are particularly anxious that every department of their business management should function to the best of its ability, to give the following plan a trial for at least a six-months' period, and then compare results with the former practice of using a printed form:—

First, make a notation on each patient's card of any individual whom they may refer.

Second, spend an afternoon or an evening in careful thought, and devise a series of five or six concise notes expressing appreciation of references, in various words. Compose these notes as though each were written for an individual occasion, using personal pronoun—I or we—in each instance, since they will be in your own handwriting. One or two others may be devised, the first words of which denote your interest and influence in the matter of acknowledgment which has been delegated to the assistant.

Third, give your assistant an order that she is to notify you of each reference, and to remind you until the acknowledgment has been mailed.

Fourth, place your order for the proper size cards with envelopes of the best quality you can secure. You may have your name neatly embossed or engraved on the card and your address only on the flap of the envelope. An effort is being consciously made to avoid any advertising display, which would accompany large type. This is a personal correspondence card, and it should carry no more than the required information in print, and that, unobtrusively.

The value of the first step in the plan becomes apparent after the patient refers more than one individual to your offices. There should be a place on the

case record card showing by whom the patient was referred, and you will find it just as important to know the number and names of the patients referred by each individual. Very often your contact with the patient will prompt you to use an entirely individual style of approach to the subject of appreciation, but in the majority of cases you will find it possible to copy one of the several notes which you have composed. By numbering these, you can easily designate opposite the name of the referred patient which note was sent acknowledging the reference. This will avoid duplication when another patient is referred—another addition to the personal touch.

Just as no two patients can be "handled" by identical methods, so no two dentists would approach a given patient with the same manner. For that reason, I wish to set forth the thoughts which must be prominent in your mind when attempting to compose a courtesy note of appreciation for the reference of a patient. If you will then express those thoughts in your own words and write them on the card yourself, your message will sound natural to your patient, and will be the ultimate injection of personality, where the copying of another's form would produce a note which would sound foreign to you.

I am trying to establish as a fact that it is possible to display the same degree of excellence in the conduct of the business part of your profession as in the technical part. The best dental restoration does not appear to be a restoration. The best stroke of business may have the least possible business element surrounding it. If charlatans and quacks can produce a lucrative business on personality alone, it would appear that the man whose services are conscientiously and intelligently rendered to the public cannot afford to under-estimate the value of a carefully planned business pro-

cedure, built up around *his* personality.

Points to be recognized in acknowledging references:

First, Promptness. Here, if ever, promptness is a cardinal virtue. I can think of nothing less effective than a printed form of acknowledgment which reaches your patient after you have met her socially or accidentally, at which time she asked you if "Mrs. So-and-So had been in to see you." If it is a bona fide reference, your promptness in acknowledging it will be appreciated, and if some would-be imposter is about to "stick" you for a dental bill, you may receive some very valuable information in a denial from the person whose name has been given as having furnished the reference.

Second, Thanks. I have divided this into four sub-divisions:

- a. You are grateful for additional business, although in your note this may appear to be a secondary consideration.
- b. You are grateful for the confidence which the patient has in your ability.
- c. You are grateful for the patient's confidence in your business dealings.
- d. You are thankful that your whole office conduct has commended itself to the patient.

Third, Assurance. You wish to renew all of the confidence which your patient has displayed in you by assuring that your best efforts will be expended to the end that the new patient will be able to approve of the reference.

Fourth, Repeat Reference. If a patient has referred more than one individual to you recently, or within the year, it is an added recognition of your attention to detail to be able to say that this is "the third patient referred" within a certain time.

Five, Individuality. There are always

a few families or persons in a dental practice who require a special type of approach. For these, any of the thoughts may be expressed in slang, or free verse, or other peculiarity.

Following are a few examples of appreciative notes which have proved useful in my practice:

Dear Mrs. Doe:

Just a little note to acknowledge my appreciation of the confidence and interest you display in my office and services by frequently referring your friends to me.

I find you are responsible for three new families coming to me this year. I hope my care of them has been sufficiently satisfactory to avoid embarrassment to you.

Mrs. Black and her daughter Helen, were the most recent to give your name as having referred them, and I shall continue to try to merit your kind words.

Sincerely,

Dear Mrs. Blank:

Unless you want me to be writing notes to you, you must be more careful of your bridge table conversation.

I was called upon today by Mrs. Doe, whom you know only casually, I believe, but who overheard you speaking in a complimentary way of my office and services.

I am most happy to have pleased you and appreciate your confidence.

Sincerely,

Dear Mrs. Blank:

I want to thank you for referring a patient to me.

Mrs. Doe presented herself today and entrusted the care of her mouth to me because you had said so many nice things about my office and the care you received here.

I shall surely bend every effort to so please Mrs. Doe that she too will always thank you.

Sincerely,

This line of thought opens up the possibility of a very legitimate piece of trickery. Mr. Black pays his bills with especial promptness, and you have commented to him about it. He refers a man to you, and at some time during the introductory conversation, you will be able to express your appreciation of such patients as Mr. Black, and say: "You know, he is the most prompt patient I have in settling his monthly account. He prides himself on sending out his check

the same day he receives his statement. To say that we appreciate it is putting the matter mildly."

The trick of this type of conversation is that you will get your check promptly from the referred patient, if it is possible for him to pay it, the first of the month. Why? Because he wants to be in the same class with the man who referred him, and because he knows that you will remember to speak about his virtues to someone else.

(To be Continued)

MOUNT
ROYAL
HOTEL

Fourteenth Annual Fall Clinic
Under the auspices of
The Montreal Dental Club

OCTOBER
12 - 13 - 14
1938

PRELIMINARY ANNOUNCEMENT

- "Porcelain Veneers and Porcelain Pontics,"
Dr. Ralph C. Cooley.....Houston, Texas
- "Full and Immediate Denture Service,"
Dr. John B. LaDue.....Chicago, Ill.
- "The Conservation of Pulp Involved Teeth as a Dental and Health Service,"
Dr. Ralph F. Somner.....Ann Arbor, Mich.
- "Periodontia for The General Practitioner,"
Dr. C. H. M. Williams.....Toronto, Ontario
- "Children's Dentistry,"
Dr. Gustav C. Tassman.....Philadelphia, Pa.
- "X-Ray Diagnosis,"
Dr. LeRoy M. Ennis.....Philadelphia, Pa.

TOPIC DISCUSSIONS—Led by the clinicians on all program subjects.

TABLE CLINICS—A series of some twelve clinics by visiting dentists from Toronto, Ottawa, Halifax, Burlington, Plattsburg, Saranac Lake, etc.

POST-GRADUATE COURSES—Practical courses will be conducted by Dr. Cooley, Dr. LaDue and Dr. Williams from 4 to 6 p.m. on October 12th, 13th and 14th.

Membership in each course will be strictly limited to 25.

Fall Clinic Membership Fee, including Two Luncheons
Resident—\$10.00 Non-Resident—\$5.00

FOR PRELIMINARY PROGRAM (Ready about September first)
PLEASE COMMUNICATE WITH THE UNDERSIGNED.

DR. F. A. EDWARD,
MEDICAL ARTS BUILDING, MONTREAL, QUEBEC.

The Forum

● PREVENTIVE DENTISTRY IN THE PRE-SCHOOL PERIOD AND DURING FOETAL LIFE

by PROFESSOR GUTTORM TOVERUD,
Oslo, Norway
(Department of Pedodontia, Norwegian Dental School, Oslo)

THE dental condition of pre-school children to-day and the economic situation of the various nations are such as to render it difficult for any government to undertake the therapeutic treatment of all its pre-school children. There is but one measure which can be recommended as a governmental plan, namely, to initiate a campaign to popularize preventive dentistry throughout the whole country. At the same time, as much as possible must be done, so far as economic conditions in the respective communities allow, to lessen the ravages of dental caries by conservative treatment and by extraction. Later on, when the preventive plan has been in force for a few years, and has resulted in better teeth among the pre-school children, systematic operative treatment should also be given from the age of not more than three years. A general dental health program, providing only operative treatment and including no scheme of preventive treatment, can never be thought of as a rational one, with dental conditions as they are to-day.

Our present knowledge suggests that preventive action against dental caries has, in the main, to be directed towards two points: (1) To ensure, through the metabolism during ante-natal and post-natal periods, that the teeth and jaws are well calcified and free from irregularities; and (2) to prevent the lodgment

on the teeth of carbohydrates and acid-forming bacteria.

There is no doubt that pathological conditions in the developmental organ of the tooth in foetal life not only produce pathological development of that part of the tooth which is under calcification at that time, but the subsequent formation of tooth substance is also influenced.

Partly because of the bad dental condition of the teeth of Norwegian children, the Norwegian Pediatric Society set up a committee two years ago to work out a scheme for raising the general health standard of the Norwegian people. A year ago the committee agreed on a plan which was then submitted to the Norwegian Ministry of Health. The plan covered:—

1. Systematic control of the pregnant mother during the whole period, with provision for giving the necessary advice.
2. Systematic supervision of the infant during the first year, again with provision for giving advice to the mother.
3. Systematic supervision of the child from 1 to 7 years together with instruction of mother and child. Medical supervision of elementary school children has already been organized.

Further, in every community throughout the country one or more "health-stations" should be erected at a low cost, and should be partly supported by the government. This year the government has granted money to print charts, as

well as pamphlets, for the pregnant mother, dealing with her own needs and those of the infant and child of pre-school age, and we now hope that in the near future governmental aid will be forthcoming for the maintenance of

the health-stations as well. Many of these health-stations are already in existence, being supported partly by private organizations and partly by the respective communities.—*Excerpts from Dental Magazine and Oral Topics.*



"Hope you don't mind waiting a few weeks for your money, Doctor. The finance company is getting a little impatient."—*By courtesy of Medical Economics.*



PRINCE EDWARD ISLAND



W. T. Wye, Charlottetown

SASKATCHEWAN



F. C. Harwood, Moose Jaw

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

NOVA SCOTIA



A. W. Faulkner, Halifax

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgecombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

C. N. Johnson

1860 - 1938

C. N. Johnson, of Chicago, one of the most beloved and widely-known dentists of our time, died suddenly on July 17, in his 79th year. Word reached us just as this issue of the Journal was being arranged for the publishers and came as a great shock, as less than two weeks ago the writer sat at the feet of this great leader as he forcefully enunciated the ethical principles of our profession before a general meeting of the Pacific Coast Dental Conference in Vancouver. At that Conference he spoke on a number of occasions, and appeared to be in his usual good health.

Dr. Johnson was born a Canadian and received his early education in Ontario and for three years after graduation from the R.C.D.S. practised his profession in the town of Collingwood, Ontario. In 1885 he graduated from the Chicago College of Dental Surgery and soon after became Professor of Operative Dentistry in that institution, a position he held for over forty-seven years of continuous service.

Lake Forest University conferred the honorary degree of M.A. on him in 1897. Loyola University conferred on him the degree of L.L.D., and at a later date the University of Toronto conferred a similar degree.

Dr. Johnson was an honorary officer in two International Dental Congresses, Honorary Member of the Société D'Odontological de Paris, La Federation Odontologica Venezolana, Honorary Life Member of the Ontario Dental Association, and of many State Societies. He was a past-president of the Chicago Odontological Society, the Chicago Odontographic, the Chicago Dental, the Illinois State and the American Dental Association. He was for three years the representative of the Eighth District on the Board of Trustees of the American Dental Association. He was Past Supreme Grand Master of Delta Sigma Fraternity, a member of Omicron Kappa Upsilon, honorary dental fraternity and fellow of the American College of Dentists.

It was not, however, for his outstanding contribution to the above: it was not for his brilliant work as a teacher: it was not for his masterly management of a busy practice that he was placed on a pedestal, but for his genius and untiring efforts in the interests of organized dentistry as he edited the official Journal of the American Dental Association, a post which he had held since 1925, having formerly edited the *Bur* and *Dental Review*.

Dr. Johnson was one of the most prolific contributors to dental literature in essays, letters, editorials, books and discussions, and through these channels has inspired and stimulated his readers to attain to higher heights of achievement in every phase of dental practice.

We would cherish the memory of this great and good man for he had the vision of a prophet, yet how difficult it is to evaluate a giant, great in gifts, great in achievement, great in the hearts of his confrères, for to know C. N. was to love him. .

To us who remain is left the gift of memory, the remembrance of his kindly deeds, the recalling of his wise counsel, the inspiration of his noble life. Grief, however, is not the end of all. Our brother who has passed would have us think of life, not death, of life for which he sacrificed himself, morning, noon and night, in the interests of his beloved profession. "As I listen the great chorus of life and joy begins again, and amid the seen and unseen powers and destinies of good and evil our trumpets sound once more a note of daring, hope and will."

BOOK REVIEW

A History of Dentistry, by Arthur Ward Lufkin, D.D.S., Assistant Professor of Dental History in the College of Dentistry, University of Southern California, Los Angeles, California; Editor of the *Journal of the Southern California State Dental Association*. Published 1938, by Lea and Febiger, Washington Square, Philadelphia, Pa., 12 mo, 255 pages,

illustrated with 90 engravings. Cloth, \$2.75 net.

In the practice of dentistry we are frequently asked about some phase of the history of our profession. To those who would give an intelligent and interesting reply this book should prove very valuable.

This book is divided into three sections, the first dealing with Prehistoric and Ancient

People, the second describing dentistry in the Dark Ages and the third called the Modern Period, tracing the development of our profession up to the present time. The first era covering prehistoric peoples is particularly valuable in accentuating the antiquity of the dental art. The author gives full credit to

the various countries that have contributed to the advancement of dentistry.

This is a fascinating, well-written and informative book and is commended to the attention of the dental profession of Canada.
—M. H. G.

CORRESPONDENCE

For a number of years Dr. W. G. Campbell practised dentistry in Winnipeg. For the past several years he has been teaching in the College of Medicine and Dentistry at Chengtu, Szechwan, West China Union University, and recently wrote the following letter to friends in Canada.

In a personal letter to the editor he describes how he has had to make inlay wax and many similar articles for his classes, as the outside supply has been cut off. He is also developing a casting material with a smaller gold content than they have been accustomed to use, of necessity, owing to present conditions.

Dr. Campbell in closing says, "Nothing we can say about the war is strong enough in protest. I do wish that a co-operative effort of protest, with no malice, could be possible in this age of civilization but it seems very difficult to arouse the masses."—Editor.

West China Union University,
Chengtu, Sze., China,
April, 1938.

Dear Friends:

I feel sure that some of you have wondered just how we have been faring in this most recent Sino-Japanese war. It most certainly is a war, and I presume the papers have carried a very full account of the actual scenes of fighting. Of course, that is only part of the story and I would like to give you a bit as it affects the part of the country in which we live. Some of the remarks may not be news but there may be certain details of interest.

Chengtu has not been bombed to date, but as it has been pointed out to us, it is the *only* large city in China that has been spared and that is not likely from choice. The planes are getting closer which adds to the nervousness of the population. The Chinese are not very bold about such matters and the much touted oriental aplomb is not an actuality. We have had a few false alarms and many practice drills in the past few months. Sirens and bells are in various parts of the city and one is supposed to harken to their warning. However, they can never decide which is going to be the practice signal and which will be the real thing, so we consider everything as practice. It is only the very

timid who leave for the country, but on one occasion when I was lecturing, I found that attention was not very keen. Chengtu being situated on a plane is not well adapted for dugouts. However, a few have had them built and I might say in passing, that in some locations, a very thriving business has been developed in dugout construction. It is certain that when the rains come they will be just cisterns in this part of the country, but perhaps this is a thought for just the very practical. We have been told that sandbags will be placed in strategical positions of the various University buildings, but as yet they have not appeared.

All imports have stopped for about the past six months, and prices of what supplies are available have been trebled. Most of us are getting very low in some of our foreign groceries. May I mention an example of how things may work out. We found a small store that had some coffee beans and bought a few pounds for \$1.00 per lb. Two days later our immediate neighbour's cook went to the store and found the price was \$2.20. Later the price was reported to have reached \$4.00 per lb. It is customary to keep about half a year's supply on hand and it is now running low in most of the things that are not bought locally. At present there is no hope of replenishing stock. A few people

are coming back by way of French Indo-China and they are bringing things with them, but mostly for their own needs.

For about six months we were without mail (except some airmail), but about three weeks ago it began to come in bundles. It came in no sequence but seemed just as welcome. It seemed to come by months as follows: Dec., Jan., Nov., and Oct. However, we were able to get caught up with our private affairs at home and now owe many letters in return. To date there has only been a very limited amount of printed matter come through and that is very inconvenient, also. Aside from reading for pleasure we are always waiting for books, periodicals and catalogues for our teaching. One thing we were glad to learn was that our Xmas mail to Canada seemed to have arrived. Letter-writing is a burden for me, and the chance that none of it might arrive at its destination was not a pleasant thought. There is always the chance that some accident will happen to it, and many accidents do happen in this country, but so far it seems to be doing very well. Not so with the mail that has come by way of North China. It appears that the Japanese had no facilities for censoring it and so destroyed it. Well, so much for that. In this note I do not wish to appear alarmed, pessimistic or in any way heroic. There are certain problems and possibilities, but it is war, and we have not really suffered except many inconveniences and losses. Naturally we must needs feel the trials of the people in whose country we live. Anyway it is a great life if you don't weaken.

It has become quite evident that bombing distant points has been very costly to the Japanese. Especially in mountainous country, wrecks have been found, and the small amount of actual damage done at distant points makes us hope that we will be spared the pleasure for a while. However, recently the air field here, which had up to 60,000 coolies working at one time, has been completed. It is now to be occupied by a number of planes, said to be a hundred. It may now be an objective.

So much for that, and now, what of the University which is our big interest! All autumn, students kept arriving from other centres of education. Many institutions also wrote to ascertain what accommodation they

could receive if they came here. There were many meetings, discussions and telegrams exchanged, many of which were ambiguous. It appears that the saturation point has now been reached. We are hosts to the following: Ginling College and Foochow University, National Central University (Medical and Dental Schools), Cheeloo University, and the University of Nanking. Within the past week we have had another request to accommodate another Medical School. This has all been in addition to a student enrolment of our own which has increased by 100 per cent. It is interesting to note that there are now 30 Chinese institutions of higher education represented in this group. One need hardly mention the fact that this has not been achieved without considerable sacrifice, effort and disappointment. The problems of administration, finance, offices, class rooms, laboratories, supplies of all kinds, housing of students and teachers, arranging courses, has not been faced before. Added to this, the property committee has also been asked to arrange for certain bomb-proof shelters and other governmental regulations. Fortunately, the need is not very pressing.

This seems a rather large order of change. Double deck beds were put in all the dormitories; the gymnasium is no more. It is just a mass of wooden double deck beds placed as close together as possible. Incidentally this gives the health committee a few gray hairs. Available Chinese buildings in the community have been rented. A certain number of temporary structures have been erected. Most of the houses have permanent guests almost to capacity. Class rooms and labs are used every available hour of the day and some extend into the night. Certain of the permanent projects have been completed. This created a humorous situation. The architect is in Chicago, and since all mail has been hopelessly slow, if at all, the plans arrived when it was time to put the roof on.

It has been a bit of a strain on those who had to make the necessary adaptation. The financial strain has been equally great. It has been rather upsetting to budget calculations. Actually one only controls one's own department but they are all taking on a bit of a red tinge and the year is not over yet. It has not been possible to procure some things,

and what were procurable have been about double in cost. They had to come by way of air freight from Hongkong. Actually the dental departments were rather fortunate because there has not been much increase in their numbers. There are no other dental schools in China but these two and they have at last gotten some of their equipment. They had some student trouble at first because they were unable to give them much work and we were unable to lend them very much. Departments, like chemistry, have had enormous increases in classes but have not been able to add to their supplies of glassware. A few avenues into the country remain open, but they are mostly occupied with military affairs. However, it has opened up a road from West China through French Indo-China to Haiphong. (pronounced High-fung).

At first a few of the down river students felt a little superior but that seems all over now. So far there has been less friction than was anticipated. Szechwan has been very much separated from the rest of China geographically and this has lead to a decided separation attitude on the part of the people. However, the influx has been so great that there is no chance of being provincial. Without a doubt, it has been a difficult time for the students. Those from down river left homes and families; also modern, convenient quarters to come to cold, dirty, strange rooms, (those not actually on the campus) without plumbing or electricity. They have received little or no word from their people, and if it is news, most of it is bad. This does not apply to everyone that is here from down river, but it is all too common. It will not be surprising if they do not study as well as they might. However, many have been here long enough to feel a bit at home. We have tried to make them happy and especially at Xmas, every student and teacher was invited to some kind of a celebration. Since then, however, the numbers are so great that we have no facilities to hold general meetings. It is hard enough to even get all the faculty members into a group.

Some of the institutions have joined with us, others are administering their own affairs but joining in on the classwork. Others are just using what we can loan in the way of buildings. Books and some equipment that

was following the refugees are arriving, which is a great help in teaching. (Nanking Central Medical School brought up six cadavers when bodies can be bought here for the price of the boxes used to carry them up.)

Our Library, which is ample for our needs, is the one building that is open at night. Tables have been put in every available space and yet it is jammed to the doors. It is the only place where students can sit and study, but how they do it in such a crowded condition is beyond me. It will give some excuse, no doubt, to write poor exams, perhaps. The Library staff of course cannot keep up with the demand and I understand that the Committee is worried.

As may be gathered from these remarks, the whole situation is a bit crowded. It reminds me of a last minute Christmas rush, everyone desperate, but a general good feeling about it all. However, it does get a bit wearisome, after a few months, to be too crowded, but our building program has relieved things a little.

In spite of the large faculty, nearly everyone is having extra teaching demands placed upon them. This is perhaps harder on the younger ones because we have not our regular teaching schedule in such shape that we can do extra. It has meant that I am not able to devote much time to language. I am very poor at it, too.

While some problems are settled, others arise. One of the most critical is that fact that many of the down river students have received no financial help from their families, and have had no work whatsoever. It is very hard because they come to the Deans and are willing to do anything in the way of loans or work, but, of course, once exceptions are made for payment of fees the way is open for many to ask for the privilege. Even the fees are so small as to be ridiculous in our way of education. They amount to about \$20.00 gold a year. Even if they leave the University their troubles are not ended, because it is almost impossible for them to obtain work that will allow them to live. I have one or two at work, making dental drawings, but it is only a very small sum of money that the department can afford this year, even though the drawings will be necessary some day.

I do hope this has not been too boring, and may give you a few ideas of what we do with our spare time. It is certainly a busy place and although everything is not perfect, it is "mo fah" as the Chinese say (nothing can be done about it). There are many things that can be done, and little by little they are being taken care of as well as we are able. As indicated however, we are not able to do everything we desire. Is anyone?

The fact remains, that Chengtu will never get over the impact of its present crisis and will be much larger from the result. It is already a centre of education that is second only to Shanghai in a country of 400 millions. It has brought many of the very best in Chinese students and teachers into one group and the number of fine people here is legion. May it always be so.

Yours truly,

W. G. CAMPBELL.

NEWS FROM THE PROVINCES

SASKATCHEWAN:

Dr. J. R. Hoagg Honoured

At the annual meeting of the Saskatchewan Fish and Game League, held recently in Regina, Dr. J. R. Hoagg, of Regina, was elected President of that important body, which is organized to conserve the wild life of the province, by public education and proper legislation.

MANITOBA:

Dr. Lott Visits Winnipeg

A special meeting of the Winnipeg Dental Society was called at 6:15 on the evening of July 21, to hear an address by Dr. F. M. Lott, of Toronto.

Dr. Lott spoke on the subject of "Closed Bite" and also "Glass as a Denture Base." A large number of the Winnipeg dentists listened with rapt attention as this very able teacher outlined some of the research which has engaged his attention for the past few years.

The president, Dr. W. A. Miller, was in the chair.

ONTARIO:

Returned Soldiers Preparatory Class

Dentistry was indeed well represented at the first reunion in 15 years of the "Prep" class which was held at the Royal York in Toronto on Friday, July 17. This class, officially known as the "Returned Soldiers Preparatory Class," was organized by the University of Toronto in 1919 to speed up the matriculation course for students whose education had been interrupted by the war.

The speaker of the evening was Sir Robert

Falconer, who was President of the University of Toronto at the time of the class organization. Sir Robert, in a very reminiscent mood, recalled his tour of the battle-fields in 1916 and the trials and tribulations of the organization of the class. He was much impressed by the fact that dentistry was the faculty in which was found the largest body of "Prep" graduates, and by the extreme youthfulness of the group. Of the 140 odd members of the class, 121 enlisted at 18 or younger.

Dentists present were: Drs. J. D. Barnet, Toronto; J. H. Downer, Toronto; A. W. Dyer, Hamilton; H. Keith Davey, Toronto; D. C. Harvie, Elmvale; Gordon Knapp, Toronto; Herb Mercer, Toronto; Norm. A. McLeod, Toronto; J. G. Paterson, Toronto; R. G. Scott, Bobcaygeon; R. F. Shuttleworth, Bracebridge; A. L. Williams, Hamilton. Other members of the class who are now in dentistry but who were unable to be present include: Drs. C. I. Coburn, Toronto; H. D. Duncan, Calgary; O. M. L. McLean, Toronto; J. C. Malcolmson, Toronto; Bruce MacNeill, Toronto; D. A. Fralick, Windsor; G. E. Westman, Sault Ste. Marie.

Mayor Ralph Day of Toronto, one of the younger members of the class, introduced the speaker of the evening and Joseph Sedgewick, K.C., expressed the appreciation and thanks of the class. Election resulted in the appointment of Dr. Gordon Knapp as President and Dr. J. G. Paterson as Secretary-Treasurer.

Dr. F. M. Lott Visits the West

Dr. F. M. Lott, Professor of Prosthetic Dentistry in the Faculty of Dentistry, Uni-

versity of Toronto, was a guest essayist at the joint meeting of the Canadian Dental Association and Pacific Coast Dental Conference. He gave a paper entitled "Glass as a Denture Base" and lecture clinics entitled "Articulation of Artificial Teeth" and "Prosthetic Treatment of the Closed Bite."

On his return trip Dr. Lott visited dental societies in Lethbridge, Calgary, Moosejaw, Winnipeg, Port Arthur and Sault Ste. Marie. In each case he presented lecture clinics.

Dr. Irvin H. Ante Plans To Visit Dental Groups in Western Canada

During the month of September, Dr. Ante, of Toronto, will conduct a number of classes in a course on "Complete Denture Prosthesis." He expects to visit quite a number of our western cities so as to make available, to as many dentists as possible, the instruction he has to offer. Dr. Ante's course has been commended highly in Ontario and New York State, where it has been presented, because of its simple technical procedure and the method of securing stability in the lower as well as the upper impression for the edentulous mouth.

Public Dental Health Committee

Dr. T. L. Marsh, Chairman of the Public Dental Health Committee of the Toronto Academy of Dentistry, announces the following personnel of his committee:

A. E. Higgins, George Morgan, T. R. Marshall, E. A. Grant, W. K. Prendergast, R. G. Knowles, Earl Bancroft, Martha Law and Karl Mueller (Secretary-Treasurer).

The discipline committee of the Royal College of Dental Surgeons of Ontario has secured the following convictions since June 1st:

A. E. Vongunten, Hamilton, a first offense, fined \$100 and costs.

J. B. Rosseau, Hamilton, second offense, fined \$200 and costs.

Dave Aikens, Toronto, first offense, fined \$100 and costs or 30 days.

Dr. Frank Martin and Dr. A. E. Higgins have been appointed Vice-Chairman and Secretary-Treasurer respectively of the Public

Dental Health committee of the Ontario Dental Association.

Bowmanville Dental Clinic

One hundred and thirty-six Bowmanville school children received free dental treatment at the School Dental Clinic, which was financed by the Rotary Club during the last three weeks of May. With all local dentists co-operating the Rotary Club supplied \$300 needed to make the clinic a success. The Health Nurse, Miss G. H. Tucker, said in her final report: "It is impossible to estimate the educational value of the clinic in dollars and cents. Already the children are taking more interest in keeping their teeth healthy, and the amount of sickness averted through the clinic can never be estimated."

Firemen Decide on Dental Treatment

Dental treatment for firemen will be included in the benefits of the Sick Benefit Fund of the Ottawa Fire Department. The Fund is quite independent of the superannuation fund and is controlled entirely by the men who make personal contributions. It was felt that good teeth would be a great protection against sickness. Dr. D. A. R. McDougall was appointed as dentist for the department. All applicants for appointments to the department will be required to have a dental examination and to have their teeth put in proper shape before being admitted to the department. Regulations will be made as to the scope of work which will be done and paid for out of the funds.

Thunder Bay Dental Association

Dr. Arnold D. Mason, Dean of the Faculty of Dentistry of the University of Toronto, was guest speaker at a banquet held on June 18, to commemorate the 25th anniversary of the founding of the Thunder Bay Dental Association. Dr. Mason addressed the members in the morning on the subject of "Sensitive Dentine."

Peterboro Dental Requirements

A statement in the annual report of Dr. J. C. Green, school dentist of Peterboro, that there were over 1,100 children in the local public schools who needed dental attention during

the past year and did not receive it, caused considerable concern when presented to the Board of Education.

Members of the Board were unanimous in their opinion that this was a serious matter and that the attention of parents should be directed to it so that the situation might be improved.

It was explained that the greater majority of these children were from families financially able to provide this treatment.

Toronto and District Golf Association

The Toronto and District Golf Association held their summer tournament at the Hamilton Golf Club at Ancaster, Ontario. Some of the prize-winners were:

Low gross—(Alex Elliott tray) Dr. L. Hipwell.

Low net—(Gordon McLean cup) Dr. F. W. Vivian.

First Flight—Low gross—Dr. Jack Trelford; Runner-up—Dr. F. Harris; Low net—Dr. F. M. Deans; Runner-up—Dr. F. Williamson.

Second Flight—Low gross—Dr. Jack Chalmers; Runner-up—Dr. J. N. Stewart; Low net—Dr. W. L. Hugill; Runner-up—Dr. G. W. Johnston.

Third Flight—Low gross—Dr. L. J. Saunders; Runner-up—Dr. Harold Swales; Best net—Dr. H. J. Hillier; Runner-up—Dr. Roy Hendry.

Other prize-winners—Dr. H. Thompson, Dr. W. Holmes, Dr. S. J. Young, Dr. B. M. Ott and Dr. J. C. Fullerton.

Clinic at Timmins

Dr. L. F. Krueger of Toronto visited Timmins, Ontario, early in May and addressed the dentists of the Porcupine District on "Root Canal Treatment."

The dentists in this district have decided to close their offices on Wednesday afternoon during the month of May, and Saturday afternoon during the months of June, July and August.

NEW BRUNSWICK:

43rd Annual Convention

The Forty-Third Annual Mid-Summer Meeting of the New Brunswick Dental Society was

held in Fredericton, July 4-6. Over forty members attended and all were enthusiastic over the program.

The invited guests included Dr. C. H. M. Williams, of Toronto, who addressed the convention several times on the subject of Periodontia; Dr. Walter Irvine, of Boston, Mass., who gave a clinic on Improved Amalgam Technique; Dr. Maurice E. Peters, of Harvard University, who presented an illustrated lecture on Office Practice and Management, and Dr. Walter Henry Wright, of Pittsburg, who gave a clinic on "Impressions and Jaw Relations," using lantern slides and motion pictures, also a lecture on the Selection and Arranging of Teeth, the Insertion and Care of Dentures and Immediate Dentures. A group demonstration was given by Dr. J. O. Crabbe on Analgesia, Mr. Andrew Hirth on Resinoids and Mr. Harry McKenna on Silicates. Dr. Harry Thomson, field-secretary of the Canadian Dental Hygiene Council, outlined the work which was being done throughout the Dominion by that organization.

The following officers were elected for the ensuing year—

President, Dr. Arthur H. Leblanc, Moncton.

Vice-President, Dr. I. J. Karrar, Saint John.

Registrar, Dr. S. K. Wetmore, Saint John.

Members of the Council:—Dr. W. C. Caruthers, Saint John; Dr. R. S. Langstroth, Saint John; Dr. J. R. Hutchinson, Saint John; Dr. G. T. Leighton, Moncton; Dr. V. Hudson, Moncton; Dr. F. L. Miller, Fredericton; Dr. B. R. Ross, Fredericton; Dr. F. C. Simms, Edmundston; Dr. H. G. Vaughan, Chatham.

Dental Patient 23 Hours After Birth

On April 2, just 23 hours after her birth, Miss Susan Jane Bonenberger had two fully developed teeth extracted from her mandible. The teeth were loose and it was feared that they might become dislodged and swallowed. —*King's County Record, Sussex, N.B.*

NOVA SCOTIA:

Halifax Dental Society

The last regular monthly meeting of the year of the Halifax Dental Society was held May 12 at the Nova Scotian Hotel, with Dr.

J. F. Griffin, president of the Society, in the chair.

The special speaker of the evening was Dr. N. H. Gosse, whose address on "Diet" was listened to with a great deal of interest.

—*Halifax Chronicle*.

PRINCE EDWARD ISLAND:

Dental Clinic

Summerside Dental Clinic has concluded its work for the school term of September 1937 to June 1938, and the following report has been submitted: Dentists employed, 5; number of clinic days, 40; number of children treated, 95; total number of fillings, 284; total number of extractions, 208; total number of prophylaxis, 57. Total number of treatments, 549. This work is made possible by contributions by the Ladies' Auxiliary of the Summerside Branch of the Canadian Legion, Catholic Women's League, Summerside Chapter I.O.D.E., Town of Summerside Department of Public Health.—*The Charlotte-town Guardian*.

BRITISH COLUMBIA:

Pacific Coast Dental Conference

The sport and entertainment program of the Pacific Coast Dental Conference, held in Vancouver, British Columbia, was such that it will long be remembered by those who were in attendance. The opening Calcutta Pool Dinner, on Sunday night, was a get-together event as well as for the auctioning of the players for the golf tournament. The following were the winners of the tournament:

Calcutta Event (36-Hole Low Gross)—J. S. Bricker, 156; Runner-up: Ralph Johnston, 160.

36-Hole Medal Championship (Handicap)—D. E. Brennan, 139 net; Runner-up: J. S. Bricker, 140.

Class "A" 18-Hole Event (1-10 Handicap)—Low Gross: Ralph Johnston; Runner-up: Frank Dean. Low net (three-way tie): Drs. Read, Burnett and Zimmerman.

Class "B" 18-Hole Event (11-17 Handicap)—Low gross: E. Fraser Allen; Runner-up: J. Hoelschu. Low net: J. Harris; Runner-up: E. P. Spearim.

Class "C" 18-Hole Event (18-24 Handicap)—Low gross: Dr. Bergendale; Runner-up:

L. Ballard. Low net: W. F. Gignay; Runner-up: Dr. Hall.

The Canadian Dental Golf Association also held its competition at the same time. The following are the Canadian winners:

Class "A" (Handicap 0-12)—Nova Scotia Dental Trophy: E. Fraser Allen. Kerr Thomson Trophy: P. E. Margeson. College of Dental Surgeons Province of Quebec Trophy: J. S. Bricker.

Class "B" (Handicaps 13-24)—J. W. Clay Trophy: Robt. J. Stuart. F. Rous Mallory Memorial Trophy: G. H. Seale.

All trophies and prizes were presented by Dr. C. N. Johnson, Chicago, Ill., at the general session, Tuesday evening.

Dr. Walden Irving Ferrier of Seattle, was honoured at a testimonial dinner, on the Wednesday evening of the Conference, for his sincerity and untiring efforts in the advancement of operative procedure. Dr. C. N. Johnson acted as toastmaster. The guest speakers were: Dr. W. J. Lea, President of the Pacific Coast Dental Conference; Dr. R. L. Pallen, President of the Canadian Dental Association; Dr. J. M. Prime, Omaha, Nebraska, who spoke on "W. I. Ferrier's Boyhood and Early Years in Practice." Dr. Geo. T. Williams, Seattle, Washington, took as his subject "Study Club Affiliations." Dr. E. M. Jones, Los Angeles, Cal., spoke on "His Influence on Dentistry." Dr. Geo. M. Hollenback, Los Angeles, Cal., spoke on "His Standing in the Dental Profession Today." Dr. Herbert C. Miller, Dean of the Pacific Northwest Dental College, Portland, Oregon, discussed "W. I. Ferrier's Contribution to Dentistry." Dr. Miller also made the presentation of a gift to Dr. Ferrier. Telegrams were read from all parts of the continent, from outstanding men in the profession.

To those who are not acquainted with Dr. Ferrier, he is America's outstanding gold foil operator and has so systematized the operative procedure of gold foil technique, not only of instrumentation but cavity preparation, that it has placed him at the very top of the dental profession.

For their splendid co-operation and efforts which made the meeting an outstanding success, a dinner was given by the Executive Council to the Essayists and Clinicians on Thursday evening. The Dominion represen-

tatives were also guests. Dr. O. T. Wherry, Portland, Oregon, President-Elect, was Master of Ceremonies. Dr. W. A. Moline, Spokane, Washington, proposed the toast to "Our Organization" and it was responded to by Dr. L. E. Ford, Dean of the Dental College of the University of Southern California. Dr. Chester W. Johnson, San Francisco, proposed the toast to "Our Guests," and Drs. C. N. Johnson, Chicago, Dr. Frank Lott, Toronto, and Dr. M. L. Tainter, San Francisco, responded. Dr. W. J. Lea, President, in his able way, introduced the toastmaster. He paid tribute to Dr. W. J. Bruce, chairman of the Program Committee, for his unfailing efforts to make the entire program a success, even at the great sacrifice of his health.

The ladies enjoyed the boat cruises, garden parties, sight-seeing trips to the north shore, and the dance. Those who are lovers of scenery and flowers, and have enjoyed the beauties of Vancouver's gardens amidst a setting of sheltered waters and mountains, will look forward to a return visit.

The outstanding feature of the meeting, as expressed by so many, was the precision with which all details were carried through, and great credit is due to the President, Dr. W. J. Lea, and the men who so ably assisted him in carrying out every detail.

British Columbia Dental Association

The Annual Meeting of the British Columbia Dental Association was held during the Conference on July 7. This was the largest meeting ever held by the organization and the future of dentistry in British Columbia seems to be very bright. The retiring President, Dr. Wm. Miller, made a brief but favourable report. Dr. Harold Cline, Chairman of the Public Relations Committee, Dr. R. L. Pallen, President of the Canadian Dental Association, and Dr. Fraser Allen, B.C. representative on the Committee on State Dentistry, made full reports.

The 1939 meeting will be held in Victoria. The following are the new officers:

President—Dr. E. W. Hetherington, Victoria. President-Elect—Dr. H. R. Grant, Vancouver.

Secretary—Dr. Hugh Munroe, Vancouver.

Treasurer—Dr. R. L. Pallen, Vancouver.

Board of Censors: Dr. R. W. Hall, Dr. G. C. Darts, Dr. V. D. Wescott.

ALBERTA:

Alberta Dental Association

The Annual Meeting of the Alberta Dental Association was held on May 30th, at Edmonton, in the Macdonald Hotel and the Medical Building of the University of Alberta. The sessions were well attended, and members were present from many country towns as well as from the larger centres. The attendance from several of the towns, being 100 per cent. The total attendance was sixty-one.

During the afternoon, and following the dinner in the evening, very interesting sessions were held, during which a keen discussion of the business of the Association took place. There was a larger attendance of members outside the Board, at this meeting than there has been for years.

Dr. Andrew Revell, was in charge of the organization of the clinical program, and deserves great credit for the efficient manner in which it was conducted.

The after dinner speaker was Dr. E. Pope, Professor of Medicine at the University of Alberta; the subject was the "Relations of the Dental and Medical Professions." During his address he paraphrased a well known saying, "Dens sano in sano corpora."

The burden of his remarks, well interspersed with humour, was a well reasoned case for dentistry uniting with and becoming a component part of the general profession of medicine. He pointed out that with the recognition of the importance of retaining or regaining mouth health as a preventive or curative procedure of major importance, dentistry had more clearly taken its place as a specialty of medicine. For this reason it should become such in its official organization as well as in fact.

Edmonton Dental Society

Dr. Arthur Ellis of the Dental Department of the University of Toronto, was a guest of the Edmonton Dental Society at the Macdonald Hotel, Edmonton, June 20. He gave an instructive clinic on "Recent Developments in Clinical and Technical procedures in Gold Inlay Restorations."

Lethbridge Dental Society

At the June meeting of the Lethbridge Dental Society, the guest speakers were Dr. R. R. McIntyre, of Calgary, who discussed fully the importance of early treatment in orthodontia; and Dr. A. C. Ahrens, D.D.S.

(University of Alberta); D. Sc. Dent. (North-west University), who has just returned from a year's study at Guy's Hospital, London, England, and who spoke on "The Dental Educational Curriculum in England."

EMPIRE NEWS

GREAT BRITAIN:

Conference on National Dental Health Association

By invitation of the British Dental Association, a conference on a proposed National Dental Health Association was held on March 25, 1938. The following resolution was unanimously adopted: "That this meeting, approving that a wide measure of dental health education is necessary in the public interest, resolves to establish a Committee to investigate the possibilities of improved organization for the purpose."

INDIA:

Dental Legislation in India

India was so long the happy hunting ground of dental quacks, indigenous and foreign. Anyone could practise dentistry without let or hindrance but now, with the advent of provincial autonomy in the various provinces of India, dental legislation is receiving attention. Although it will take time to put the dental laws on the statute books, still the move is on. We are glad to report that Bengal has been first in the field with a Government Dental Bill, which was introduced in the Bengal Legislative Assembly by the Hon. Minister of Public Health on the 30th March, 1938. On the motion of the Minister of Public Health the Bill was referred to a Select Committee and will be taken up, and probably passed at the next Session of the legislature.

The main provisions of the Bill are that a Dental Board will be set up in Bengal whose duties will be to supervise dental education and keep a register of qualified dentists. The examinations for the license in Dental Surgery will be held in conjunction with the State Medical Faculty. The bill lays down that

those who have been in actual practice of dentistry, as a means of livelihood, for five years or more will be entitled to be registered; those practising for less than that period will be required to pass a special examination to be held by the Dental Board. The following qualifications will entitle one to be registered in Bengal.

Indian List.

1. Licentiates of the Calcutta Dental College & Hospital.

2. Licentiates and graduates of any University or dental board established by an Act of the Indian Legislature or of a provincial legislature.

3. Persons holding qualifications registrable under the Bengal Medical Act and who at the time of passing of this Act are bona fide engaged in the practice of dentistry or dental surgery either separately or in conjunction with the practice of medicine or surgery.

Foreign List.

1. Persons holding qualification registrable under the British Dentists Act 1878 and 1921.

2. British Indian Subjects holding foreign qualifications which entitle them to practise in the country where the qualification was obtained, provided however, that such qualifications are approved by the Provincial Government.

It will, therefore, be seen that although the list of those entitled to registration is not as rigid as in other countries, still it is a great advance on the existing state of affairs, and the Minister of Public Health is to be congratulated on bringing up this Bill, within such a short time after his appointment to take charge of the Department.

We understand similar Bills are in course of preparation in Bombay and the Punjab and we have no doubt that as soon as Bengal leads the way, all other provinces will follow suit. There is only one fly in the ointment,

and that is if the British Government should force the proposed unwanted Federation of India, all the elected Ministers in the provinces will resign and everything will be in

the melting pot again. All reforms, dental or otherwise, will then have to wait till more propitious times arrive. *Calcutta June 1, 1938, R. Ahmed.*

GENERAL NEWS

Canadian Dental Association

The House of Delegates of the Canadian Dental Association convened in Vancouver, June 30 to July 2. The following members were present: Dr. R. L. Pallen (Chairman), British Columbia; Dr. C. M. Fletcher, Alberta; Dr. G. L. Cameron, Saskatchewan; Dr. M. H. Garvin, Manitoba; Dr. Stephen A. Moore, Ontario; Dr. W. H. Woodrow, Ontario; Dr. Edward T. Bourke, Quebec; Dr. Ephrem Vinet, Quebec; Dr. Howard MacDonald, New Brunswick; Dr. A. W. Faulkner, Nova Scotia; Dr. J. Stanley Bagnall, Nova Scotia, (Secretary); Dr. J. A. McMurdo, Prince Edward Island.

The following officers were elected for the ensuing year: President, Stephen A. Moore, London, Ontario; President-Elect, W. W. Woodbury, Halifax, N.S.; Secretary-Treasurer, J. Stanley Bagnall, Halifax, N.S.; Executive Committee, Stephen A. Moore (Chairman), G. L. Cameron, Edward T. Bourke, W. H. Woodrow, R. L. Pallen, A. W. Faulkner.

Chairmen of Committees: Dental Legislation, J. Stanley Bagnall, Halifax, N.S.; Dental Health, Harry S. Thomson, Toronto, Ont.; Dental Education, A. D. A. Mason, Toronto, Ont.; Public Relations, J. S. Lapp, Toronto, Ont.; Finance, Edward T. Bourke, Montreal, Quebec; Canadian Army Dental Corps, Ira Hamilton, Ottawa, Ont.; Journal, to be appointed; Research, to be appointed; Benevolence, to be appointed; Ethics, G. L. Prestien, Galt, Ont.; Indian Affairs, Howard MacDonald, Saint John, N.B.; Constitution and By-Laws, A. W. Faulkner, Halifax, N.S.; Nomenclature, Gerald Franklin, Montreal, Quebec; Insurance, A. E. Higgins, Toronto, Ont.; Necrology, C. M. Fletcher, Lethbridge, Alberta; Archives, J. Stanley Bagnall, Halifax, N.S.

The reports presented at this meeting will appear in early issues of the Journal.

The next meeting of the Canadian Dental

Association will be held in 1940 in the city of Toronto.

Dominion Dental Council

The Dominion Dental Council held its regular meeting in Vancouver, July 1-2. The following is a list of the new officers and representatives:

President—Dr. W. C. Oxner, Halifax.

1st Vice-President—Dr. J. M. Dixon, Calgary.

2nd Vice-President—Dr. G. L. Prestien, Galt, Ontario.

Secretary-Treasurer—Dr. A. J. Brett, Regina, Sask.

Representatives—Dr. H. A. Croll, Souris, Man.; Dr. J. M. Magee, Saint John, N.B.; Dr. Heath McIntyre, Charlottetown, P.E.I.

The Council decided on the following procedure:

1. To hold one annual examination commencing the second Monday in June, consisting of six papers, all to be written on successful completion of the college course; Class "D" to take the same examination, the college guaranteeing all junior year subjects.

2. Fee for Class "A", \$75.00; Fee for Class "D", \$100.00; Fee for special supplemental examination, \$15.00 per paper.

Note.—All students who have commenced progressive examination will be permitted to complete the same at the end of their college course on payment of the balance of the previous fee.

The following is a list of the examination papers and the names of the examiners and the associate examiners:

1. Preventive Dentistry, (including nutrition, mouth hygiene, oral prophylaxis and application of preventive principles in dentistry). Examiner—Dr. A. B. Haverstock, Assoc., Dr. H. M. Eaton.
2. Operative Dentistry, (including diagnosis, dentistry for children, orthodontia, radiography and ceramics).

Examiner—Dr. M. A. McIntyre.

3. Prosthodontia, (including crown and bridge, and partial denture prosthesis). Examiner—Dr. J. Stanley Bagnall. Assoc., Dr. S. K. Oldfield.
4. Dental Surgery and Anaesthesia. Examiner—Dr. E. W. Paul.
5. Oral Medicine, (including root canal therapy and periodontology). Examiner—Dr. H. K. Box.
6. Practice Management, (including economics, ethics and jurisprudence). Examiner—Dr. Kenneth M. Johnson. Assoc., Dr. M. H. Garvin.

A certificate from the dental school which the candidate attended must be submitted, certifying that he completed, satisfactorily, the courses in the following subjects: anatomy, histology, dental anatomy, organic chemistry, biochemistry, physiology, pharmacology, metallurgy, bacteriology, pathology, principles of medicine, principles of surgery.

1938 Dental Graduates

Fewer than 1,450 newly trained dentists—the smallest number in any year since 1921—are leaving college this month to help care for the nation's mounting dental ills, the American Dental Association revealed recently.

Graduates from the nation's 39 dental colleges number 1,700, but 100 are foreign students who will return to their native lands; from 50 to 75 will enter fields of education and public health and 7 per cent. of the remainder will fail to pass state board examinations.

The 1,450 new practitioners scarcely compensate for 1,500 older dentists who will be taken from the profession in 1938 by death, retirement or by some other field of endeavour, according to Dr. Lon W. Morrey, director of educational service for the A.D.A.

"School examinations conducted by the Association and the United States Public Health Service show that more than 90 per cent. of the children in America are in need of dental care," Dr. Morrey said. "With fewer men to care for this vast amount of work, the entire practice of dentistry must change from corrective to preventive endeavour. Our educational program of dental health for American youth is striving in that direction."

Dr. Morrey said that while business depression has had much to do with the decrease in college enrolment, higher educational standards and failure of students to pass special aptitude tests have also limited enrolment. He added:

"The cost of becoming a practising dentist accounts for many high school students making their choice of a life work in other fields. Six years in obtaining a dental education requires an average outlay of between \$5,000 and \$6,000. Another \$2,500 is needed to equip even a modest dental office.

"Considerably more is spent if the office is equipped to do all the laboratory work, make x-ray examinations and administer nitrous oxide for general anaesthesia. Thus the dental graduate has between \$8,000 and \$12,000 invested before he inserts his first filling or extracts his first tooth."

Dr. Morrey estimated that this year's dental graduates will spend more than \$3,750,000 in dental equipment for the 1,450 offices they will rent.

In spite of the large initial outlay, the dentist's potential earning capacity is far above the average individual, Dr. Morrey said, quoting statistics from the United States Department of Commerce.

These figures showed the average net dental income in 1929 as \$5,020, which fell to \$2,780 in 1934. The estimate for 1937 is \$3,100.

"As it costs the average dentist about 45 per cent. to conduct his practice, the gross income averages from \$4,500 to \$5,000," Dr. Morrey explained.

According to these estimates, the average amount spent by each individual in the United States for professional dental care was less than \$2.50 in 1937.—*From Bureau of Public Relations, A.D.A., June, 1938.*

Health and Scientific Exhibits, St. Louis

Truly wonderful in its graphic unfolding, the March of Progress in dentistry will be presented as never before at the American Dental Association convention in St. Louis, Mo., October 24 to 28.

This vivid portrayal will be accomplished in the Scientific and Health Exhibit which will fill more than 30,000 square feet of the

magnificent new St. Louis Municipal Auditorium.

The past, present and future of dental science will be depicted in more than 125 exhibits which will cover every phase of dentistry and its allied subjects.

Charts, pictures, posters, diagrams, models and three dimensional material will combine to enact an historic account of the great advances made by dentistry and to foretell the greater things to come.

With the 1938 theme "Dental Health for American Youth," the St. Louis Exhibit spotlight will shine strongly on "Youth Lane."

In this section, more than 5,000 dental health posters, winners in the state and component society finals of the national contest, will be displayed in glorious array.

Present plans indicate that the commercial exhibits will be the largest and most pretentious in the history of the Association.

Open Letter

TO ALL INVESTIGATORS, THROUGHOUT THE WORLD, IN THE FIELD OF DENTAL CARIES

April 18, 1938

For several years the Research Commission of the American Dental Association, in the performance of its special functions, has been aiming to publish clarifying summaries of the main findings in various fields of dental research. A collection of such summaries, if systematic and comprehensive, would present the main data and references in conveniently accessible form; would facilitate convergence of researches on the chief problems; and would favour correct use of advanced knowledge by dental practitioners and all others concerned. The Commission now inaugurates this general plan, in direct relation to dental caries, by the following special procedure:

(1) Each living person who, from research of clinical observation, has published *findings* and *conclusions* that bear in any way, directly or indirectly, on the cause or on the control of dental caries in man or animals, is hereby cordially invited.

(a) to send, to the Commission, a concise summary of the *basic findings of fact* which, in his belief, warrant the conclusions that, as of a date to be specified by him, represent the essential results and his matured judgment of the outcome of *his own study in*

this field; also

(b) to indicate the location of the paper or papers in which his *basic findings and conclusions* have been published; and

(c) to append, to the brief summary of his *basic findings and conclusions*, any supplementary statement that would seem to him to be necessary for adequate evaluation of his crucial results.

(2) To illustrate the kind of brief, direct, matter-of-fact, up-to-date summaries the Commission desires to obtain directly from all living investigators in this field, we append the following example, prepared at our request by Dr. Bunting (for the sake of brevity in this open letter, a supplementary statement to be included in the published form has been omitted:)

BUNTING, RUSSEL W. (for the *Michigan Group Research on Dental Caries*).—April 15, 1938. (1) No consistent relationship has been found between hardness or perfection of teeth, nor state of mouth hygiene, and activity of dental caries. (2) No correlation has been demonstrated between amounts of salivary calcium, phosphorus, chlorides, pH, CO₂ capacity, total alkalinity, total solids, or ash and activity of dental caries. (3) No relationship has been demonstrated between intake of calcium, phosphorus, or acid-base dietary values and activity of dental caries. (4) Inherited tendencies or inherent individual characteristics, in a small percentage of cases, are more important determining factors in dental caries than ordinary dietary conditions. A great majority of caries-susceptible individuals, however, can apparently be benefited by adoption of very simple dietary measures. (5) No evidence was found to indicate that dental caries is produced by malnutrition, or that it may be prevented by feeding adequate diets. (6) Sugar is a very important factor in dental caries. A remarkably low degree of dental caries was observed in children on low-sugar diet deficient in calcium, phosphorus, and vitamin D. Active caries was induced in children by increasing sugar intake while they were receiving diet that was nutritionally adequate. Ingestion of low-sugar diets by children is conducive, as a rule, to freedom from dental caries. (7) The most constant differential between caries-free and caries-susceptible individuals, thus far

demonstrated, is that of the relative number of *L. acidophilus* organisms in the mouth. This correlation is approximately 90 per cent positive. (8) An immunologic principle antagonistic to *L. acidophilus* has been demonstrated in the blood of caries-free individuals, in whose mouths, as a rule, *L. acidophilus* does not exist; and when planted therein promptly disappears. *Publications presenting methods and findings*: *J. Den. Res.*, 13, 415; 1933, Oct. *J. M. Den. Assoc.*, 20, 2130; 1933, Dec. *J. Nutrition*, 7, 657; 1934, June. *J. M. Den. Assoc.*, 23, 846; 1936, May.

(3) All these summaries of outstanding actual findings, with bibliographic references, and brief and direct supplementary comment where the stated results need interpretation or clarification,

(a) will be assembled in the alphabetic order of the names of the authors;

(b) main findings and conclusions, in the same sub-divisions of the field, will also be recapitulated in supplementary summaries;

(c) an index of all authors, and of all findings and conclusions, will be included; and

(d) the compilation will be published in toto, or effectively abstracted for publication, as the Commission may decide.

If the publication of the whole compilation, and its wide distribution, should necessitate appeals for philanthropic funds, it is believed adequate support for this public project would be available.

The proposed compilation of summaries will separate clearly from many disagreements, abundant mistakes, numerous irrelevances, multiple re-publications, etc., the finding and conclusions that each worker, regardless of the length of time during which he has laboured, the past variations and revisions in his views, and the range of his studies—*now regards as the outstanding basic results of his experience in this field*. The compilation will be, in effect, not a series of abstracts of individual publications, but, instead, a direct authoritative crystallization of basic findings and conclusions *as they now stand* in each worker's studies of the cause or of the control of dental caries. We hope to receive promptly the effective co-operation of all active students of dental caries, wherever resident, and to be able to report completion of the initial phases of this effort at the next

annual meeting of the American Dental Association in October, 1938.

The general correspondence with observers and investigators will be conducted, for the Commission, by the secretary of the Advisory Committee. Responses to this invitation may be sent to him.

FOR THE RESEARCH COMMISSION, by the
ADVISORY COMMITTEE ON RESEARCH IN
DENTAL CARIES:

Daniel F. Lynch, Chairman, 1149—16th St., N.W., Washington, D.C.

Charles F. Kettering, Counsellor, General Motors Corporation, Detroit, Mich.

William J. Gies, Secretary, 632 West 168th St., New York City.

■

Economics

California Statistics

It cost California's State Medical Association \$100,000 to complete one of the most expensive surveys of health costs and services ever to be conducted, and last month the figures were released, with many observers decrying the lack of concrete results obtained by the survey.

The survey revealed that health service costs the average Californian \$24.33 per year; that twenty-one cents of his medical dollar goes to dentists; that the average physician's income is \$3,572, the average dentist's \$2,769; that physicians' and dentists' earning power is at its peak from the fifteenth to the nineteenth year after entering practice; that towns ranging in size from 25,000 to 50,000 produce the best incomes for physicians and dentists; that the average man in private practice nets \$227 more annually than his average colleague on a salary basis; that the average dentist can collect 74.1% of his bills. The survey was started in 1934, the figures consequently can be applied to present conditions only with reservations.—*Dental Survey — April 1938* (*A. D. A. News Release Service*).

•

Trailer Hospital Newest Departure in United States Medicine

The day when a patient can call up the Board of Health and order a trailer hospital sent to his door for an operation or an unruly kidney may be at hand.

It has already arrived in Texas, according to Dr. Guy S. Millberry, Dean of the College

of Dentistry, University of California, who has, himself, completed a six months' trailer trip through the United States and a portion of Canada in an effort to gain first-hand information on the public health phases of dentistry everywhere.

The hospital trailer was found in the little city of Ysleta, Texas, and is owned by a Doctor Love, according to Doctor Millberry. While it is equipped chiefly for obstetrical work in the rural sections, it can accommodate other types of cases. In some respects it is far superior to a number of the smaller, isolated hospitals throughout the country, Dr. Millberry says. The trailer hospital works within a range of fifty miles or so around Ysleta and accomplishes from thirty to thirty-five deliveries a month. A trained nurse accompanies it as a rule, but additional technicians can be accommodated

when needed.—*From: California and Western Medicine May, 1938. (A.D.A. News Release Service).*

Foreign Chewing Gum Sales Total \$1,177,527

Foreigners bought \$1,177,527 worth of American chewing gum in 1937, export trade statistics showed on February 22 at Washington.

The gum bill, which was four times that for chocolate candy, almost equalled figures on false teeth. It exceeded the amount foreigners paid for such items as American elevators, vacuum cleaners, silk underwear and razor blades.

Fly swatters outsold golf balls in foreign markets. The world demand for pain remedies just about equalled that for saxaphones.—*Saint Paul Dispatch, February 22, 1938.*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

William S. Balcom, of Victoria, British Columbia, aged 42, died June 29, following a brief illness. He was graduated from the North Pacific College of Dentistry in Oregon, and commenced practice in Victoria in 1919.

He was one of the finest baseball pitchers ever developed in Victoria. He was also a popular member of the Gyro Club and the Benevolent and Protective Order of Elks.

Dr. Balcom is survived by his widow, a son, two sisters and two brothers.

•
George P. Taylor, Chatham, Ontario, aged 79, died June 25, at the home of his niece, Mrs. E. L. Rose. He was born in the house in which he died.

For the past 45 years Dr. Taylor has practised dentistry in the city of Chatham.

•
Richard McKnight, of Toronto, Ontario, died July 13. He graduated from the University of Toronto, and in the course of following his profession he practised at North Bay, Port Arthur and Sudbury. He

retired 17 years ago and took up residence in Toronto.

•
Mrs. J. B. Willmott, Toronto, Ontario, aged 94, died June 28 at her home. A link with the past has been broken in the passing of the beloved wife of the late Dean James Branton Willmott of the School of Dentistry of the Royal College of Dental Surgeons of Ontario. Mrs. Willmott was born in Milton and was married there in 1864, coming to Toronto with her husband in 1870. She was a very ardent church worker, being a member of Metropolitan church since its opening and in regular attendance for 65 years. She has always been an enthusiastic supporter of the Women's Missionary Society; for many years she was president of the Toronto Conference Branch and a member of the Missionary Board.

She is survived by her son, Dr. Walter Willmott, who is known and beloved by the profession of dentistry in all Canada, his daughter Evelyn (Mrs. F. L. Till, Toronto), and his son Earl in Chengtu, China. There are five great-grandchildren.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Têtreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Programme préliminaire du 4-e Congrès des Dentistes de langue française de l'Amérique du Nord

Condamné à 6 mois de prison et libéré au bout d'une heure

(Du correspondant de la PRESSE)

Québec, 18—Etre condamné à six mois de prison et se trouver libre, après une heure de cachot; voilà une affaire qui ne manque pas de piquant. C'est pourtant l'aventure qui est arrivée, il y a quelques jours, à un citoyen de cette ville, Valmore Jolicoeur, trouvé coupable de pratique illégale de l'art dentaire. Un juge de la Cour supérieure l'avait condamné à \$500 d'amende et les frais ou à défaut, à six mois de prison. A l'expiration du délai de 15 jours, qui lui fut donné pour payer l'amende, le prévenu prit le chemin de la prison. Cependant à la grande surprise de tous, au bout d'une heure, il était libre.

Des officiers du Collège des dentistes et l'avocat de ce corps professionnel sont allés aux renseignements et ils ont appris que le défendeur avait tout simplement été libéré en vertu d'un arrêté ministériel spécial.

Hôtel Mont-Royal, les 2, 3, 4 juin, 1938, Montréal, Canada

JAMAIS

Y a-t-il déjà eu à Montréal un congrès semblable à celui qui aura lieu au début du mois prochain? Jamais.

Alors nous croyons que ça vaudra bien la peine d'y assister. On nous informe que déjà plus de 300 confrères ont rempli et envoyé leur formule d'adhésion accompagnée de leur souscription. Pourquoi ne pas en faire autant tout de suite cela faciliterait tellement la tâche des organisateurs.

Le programme qui suit n'est que préliminaire. Nous le publions pour ceux des confrères qui l'auraient perdu ou n'en auraient pas eu.

AVANT-PROPOS

Nous vous présentons un programme préliminaire du quatrième Congrès de l'Association des Dentistes de langue française de l'Amérique du Nord, qui aura lieu à Montréal, à l'hôtel Mont-Royal, les 2, 3, 4 juin 1938.

Vous constaterez que le Comité d'organisation n'a rien épargné pour faire de cette réunion l'événement "par excellence" de l'année professionnelle 1938: des films scientifiques, préparés et commentés par des autorités reconnues de notre profession; des conférences et des cliniques, qui couvrent tous les domaines de la dentisterie; des événements sociaux, qui vous procureront à vous et à votre épouse, l'occasion de rencontrer vos confrères et leur compagne; des kiosques commerciaux, où les manufacturiers exposeront les plus nouvelles réalisations de leurs matériaux et de leurs instruments; une exposition de "violons d'Ingres" de dentistes, enfin le comité a réuni, dans l'atmosphère luxueux et accueillant de l'hôtel Mont-Royal, tous les éléments, qui contribueront à vous faire vivre trois journées dans l'utile et l'agréable.

Inscrivez-vous de bonne heure et amenez votre épouse au congrès.

COMITE D'ORGANISATION

Président: PAUL GEOFFRION

Secrétaire: ARMAND FORTIER

Trésorier: ADOLPHE L'ARCHEVEQUE

CLINIQUES ET CONFERENCES

Gérard de Montigny

RECEPTION

Amherst Hébert

PUBLICITE

Gabriel Lord

ENREGISTREMENT

Albert Surprenant

IMPRESSION DU PROGRAMME

A.-D. Milot

PROPAGANDE

Ephrem Vinet

EXPOSANTS

Adolphe L'Archevêque

PASSE-TEMPS FAVORIS

Paul-E. Poitras

SALLE D'EXHIBITS COMMERCIAUX

Une vaste salle groupera tous les kiosques des, manufacturiers de matériaux, d'appareils et d'instruments dentaires.

Cette salle sera accessible aux congressistes et à leurs amis aux heures suivantes:

Judi: 9.30 a.m.— 5.30 p.m. heures

Vendredi: 9.30 a.m.— 5.30 p.m.; 7.30 p.m.—9.30 p.m. heures

Samedi: 9.30 a.m.—11.30 a.m.

PASSE-TEMPS FAVORIS

Le comité d'organisation a réservé, cette année, une section intéressante, où les dentistes sont invités à exposer les produits de leurs "violons d'Ingres".

Ces exhibits seront groupés dans une salle particulière où les congressistes pourront se rendre compte du bon emploi des loisirs de leurs confrères.

Exposeront à cet étalage "nouveau genre":

Théo. Côté	— philatélie.
Joseph Nolin	— pastels, peintures, sculptures
J.-Baptiste Lagacé	— œuvres d'art
M. Chagnon	— papillons
Lucien Reeves	— radio
Paul Geoffrion	— masques
Viger Plamondon	— trophées de chasse et de pêche
Denis Forest	— anatomie dentaire comparée
Louis-B. Amyot	— photographies artistiques
Paul-E. Poitras	— antiquités
Josse de Wever	— photographies
Abbé Fournier	— entomologie
Alcide Thibaudeau	— reliure et radio
Gustave Gauthier	— dents monstrueuses.

LISTE DES FILMS SCIENTIFIQUES

1. "NOUVELLE METHODE DE FABRICATION DES DENTIERES PARTIELS", par René Rochon, D.D.S., Detroit, Michigan.

Cette pellicule montre les plus récents développements apportés à l'efficacité de la prothèse partielle et couvre diagnostique, le choix des appareils, la prise d'impression et d'articulation, la fabrication des pièces et l'ajustage définitif.

Ce film sera précédé et suivi d'une courte communication par l'auteur, où celui-ci facilitera la compréhension du film à l'aide de transparents.

2. "ALVULSION DES TROISIEMES MOLAIRES INFERIEURES", par George Winter, D.D.S., St. Louis, Missouri.

Film sonore où l'auteur, qui jouit d'une réputation mondiale dans le domaine de la chirurgie buccale, exposera sa technique personnelle pour l'extraction des dents de sagesse.

3. "FABRICATION DES DENTIERES IMMEDIATEMENT APRES L'EXTRACTION DES DENTS", par Merrill G. Swenson, D.D.S., New York.

Ce film illustre de brillante façon, la théorie voulant que des dentiers peuvent être préparés et mis en place immédiatement après l'extraction des dents; le travail photographié sur la pellicule fut exécuté au New York University, School of Dentistry, sous la direction de Dr Swenson.

Son assistant, George A. Buckley commentera cette projection colorée.

4. "FABRICATION D'UN PONT EN PORCELAINE", par René Sarrazin, D.D.S., photographié par Georges Larue, D.D.S., Montréal.

Ce film montré aux congressistes, l'an dernier, a suscité des commentaires tellement élogieux que le Comité a cru bon de l'insérer au programme, encore cette année. Tout le travail occasionné par la fabrication d'un pont en

porcelaine, tant dans le cabinet du dentiste, que dans son laboratoire, est exposé de la façon la plus simple et la plus précise possible.

5. "PRESENTATION D'UN CAS D'ANODONTIE", par Paul Geoffrion, D.D.S., Montréal.

La littérature dentaire ne rapporte que six cas de personnes qui n'aient jamais eu de dents, temporaires ou permanentes. L'auteur a eu la bonne fortune de venir en contact avec un patient atteint de cette anomalie et nous fait part de son examen.

6. "ABLATION D'UN FREIN ANORMAL", par Gérard Plamondon, D.D.S., Montréal.

Tout dentiste peut pratiquer l'ablation d'un frein anormal de la lèvre supérieure, s'il comprend bien les données du problème et s'il possède ses principes d'aseptie. L'auteur exécute devant nous, de la façon la plus simple, l'excision d'un frein anormal.

7. "TRAITEMENT DE LA PYORRHEE PAR LA CHIRURGIE", par Jules Thébaud, D.D.S., Port-au-Prince, Haïti.

Il y plusieurs méthodes employées pour le traitement de la pyorrhée; toutes sont bonnes, pourvu que l'opérateur comprenne bien la question de la pyorrhée et qu'il connaisse à fond les règles, qui gouvernent l'emploi du traitement, qu'il a choisi.

Le Dr Thébaud nous présente, dans son film, sa méthode personnelle de combattre les dégâts causés par la parodontose.

8. "IMPRESSION DE LA FACE AU MOYEN DU NEGOCOL", par Paul Geoffrion, D.D.S., Montréal.

Tout dentiste, qui désire conserver des fiches complètes de l'état buccal de ses patients se doit, spécialement en orthodontie, de photographier, ou, ce qui est mieux, de faire un masque du faciès de son patient avant et après les traitements. L'auteur nous donne

- ici un moyen pratique de prendre les impressions des traits du visage.
9. "L'ANAESTHESIE LOCALE, OPERATION JOURNALIERE DU DENTISTE", par Cook Laboratories Inc., New York.
- Film bilingue, illustrant le système nerveux du maxillaire et de la mandibule et dix-huit techniques différentes pour l'insensibilisation locale ou régionale.
10. "FABRICATION DE DENTIER COMPLETS", par Merrill G. Swenson, D.D.S., New York.
- Pellicule cinématographique en couleur, préparée sous la direction personnelle du Dr Swenson, chef de la section de prothèse du New York University College of Dentistry, pour illustrer dans tous ses détails la prise d'impression, d'articulation, de propulsion et du montage des dents. George A. Buckley, de New York, commentera la projection.
11. "APECTOMIE ET PREPARATION D'UNE PILE POUR COIFFE DE PORCELAINE", par René Sarrazin, D.D.S., Montréal.
- Dans ce film, nous aurons le double avantage d'assister à l'excision d'un bout d'apex entouré d'un sac de pus et à la mise en place d'un pivot, qui servira de pile pour une couronne en porcelaine.
12. "LE TRAITEMENT D'UNE FRACTURE DE MAXILLAIRE", par Lucien Reeves, D.D.S., Montréal.
- Ce film est une exposition des différentes phases du traitement d'une fracture de la machoire, comprenant le diagnostique, la réduction, la fixation au moyen d'appareils appropriés et l'ablation des ancrages quand la soudure des fragments s'est opérée.
13. "FONCTION PHYSIOLOGIQUE DES CELLULES" "IN VIVO", préparé sous les auspices de l'American Society for the Control of Cancer, New York.
- Voici un film des plus curieux et qui a nécessité de la part des opérateurs des prodiges d'habileté et de technique.
- On a réussi à photographier, chez un sujet vivant, la circulation du sang et les phénomènes de phagocytose dans les tissus.
14. "LES DIFFERENTS PROCEDES DE LA RADIOGRAPHIE DU PROFIL ET LEURS APPLICATIONS PRATIQUES", par Gérard Baillargeon, D.D.S., Montréal.
- Pellicule cinématographique montrant les techniques intra et extra-orale de prises de radiographies précises et claires. L'auteur insiste particulièrement sur le maniement du tube et sur tous les principes établis pour faire de la radiographie un adjuvant précieux dans le diagnostique.
15. "METHODE DE PRENDRE LES EMPREINTES A L'AIDE DU PLATRE POUR LES APPAREILS D'ORTHODONTIE", par A. W. McClelland, D.D.S., Montréal.
- Un nombre assez grand de substances plastiques, propres à prendre les empreintes des dents, a fait son apparition depuis quelques années.
- Mais la plus ancienne de ces substances, le plâtre, demeure pour plusieurs praticiens, bien familiers aux règles qui doivent présider à son emploi, la plus sûre et la meilleure méthode d'obtenir une reproduction parfaite des détails anatomiques intéressants.
16. "CHIRURGIE BUCCALE ET ANESTHESIE", par Lucien Reeves, D.D.S., Montréal.
- Ce film nous permet d'assister à quelques opérations chirurgicales de la bouche, que le praticien est parfois appelé à faire dans son cabinet: en outre nous verrons quelques méthodes de produire l'anesthésie locale dans une ou l'autre partie de l'appareil masticatoire.
17. "TRAITEMENT DE LA PYORRHEE PAR LA METHODE, DITE "ELECTRO-COAGULATION", par Earl M. Laurin, D.D.S., Montréal.
- Ce mode de traitement a fait des progrès immenses depuis quelques années; les effets de ce procédé, qui demande des notions assez étendues sur le maniement de l'appareil sont, dit-on, merveilleux.
- L'auteur explique en détail tout ce que le praticien doit savoir au sujet de l'électrocoagulation pour mener à bien le traitement de la paradentose.
- Le Dr Laurin fera précéder la projection de son film d'un court exposé de son sujet.
18. "PRISE D'IMPRESSON AVEC LES SUBSTANCES COLLOIDALES ET MANIERE DE LES CONSERVER INDEFINIMENT", par Paul Geoffroin, D.D.S. et Gabriel Lord, D.D.S., Montréal.
- Préparation des substances pour les prises d'impression d'après leurs propriétés physiques et chimiques—manipulation de ces matières—coulage des modèles—méthode d'utiliser la même substance pour d'autres impressions.
19. "ARTICULATION INTRA ET EXTRA-ORALE", par J.-A. Pinault, D.D.S., et Roland LaSalle, D.D.S., Montréal.
- Ce film illustre les principes fondamentaux, qui gouvernent la physiologie de l'articulation crano-mandibulaire et aussi les moyens dont le dentiste dispose pour enregistrer les rapports de cette articulation.
- La prise d'articulation est une des phases les plus importantes de la confection des dentiers et la négligence de soin pour l'enregistrement des relations normales de la tête du condyle et de la cavité glénoïde compromet le résultat final.
20. "ESTAMPAGE D'UNE PLAQUE EN ACIER INOXYDABLE", par Josse de Wever, D.D.S., Montréal.
- Cette pellicule cinématographique montre la technique complète d'une prothèse en acier inoxydable, mise à la portée du praticien général; les différentes phases—préparation et moulage du modèle, coulée des matrices, refoulement progressif de l'acier par un métal mou (plomb), adaptation finale par une presse ordinaire, finissage et polissage—sont illustrées en détail.
21. "PRISE D'EMPREINTE POUR LES DENTIER PARTIELS", par F. L. Cole, D.D.S., Toronto.

Les empreintes pour les dentiers partiels peuvent être prises de différentes manières et avec des substances diverses, plâtre, stents, substances colloïdales. Le Docteur Cole, attaché à la section de prothèse partielle de l'Université de Toronto nous exposera, sa manière personnelle d'obtenir une reproduction parfaite des dents à compléter.

22. "NOUVELLE TECHNIQUE POUR LA CONSTRUCTION DES PROTHESES ET FACON PRATIQUE DE REAJUSTER LES DENTIER", par Frank L. Cole, D.D.S., Toronto.

Le film illustre une théorie aussi simple que pratique pour la confection de prothèses complètes, comprenant la prise d'articulation, l'enregistrement des rapports occlusaux et centriques, le montage des dents, la cuisson et le finissage des pièces.

Une façon rapide et commode de réajuster les dentiers, quand la résorption normale des gencives s'est effectuée, complète le film.

23. "ADMINISTRATION DU VINETHENE", par Moïse Clermont, M.D., Montréal.

Le Vinethene est un anesthésique général dont l'action analgésique et les effets post-opératoires se comparent très favorablement aux autres anesthésiques employés plus fréquemment. En chirurgie dentaire, le Vinethene offre des avantages uniques et le film se charge de nous montrer sa facilité d'administration et son élimination rapide.

24. "ARTICULATION PHYSIOLOGIQUE", par Ernest Gendreau, M.D., Montréal.

Courte pellicule cinématographique où il nous est donné de voir l'articulation gléno-mandibulaire au point de vue de la mécanique.

25. "LE REGIME ALIMENTAIRE DES ESQUIMAUX DU LABRADOR ET D'ALASKA ET LEUR SYSTEME DENTAIRE", par L. M. Waugh, D.D.S., New York.

Le Docteur Waugh, directeur de la section d'orthodontie du School of Dental and Oral Surgery de l'Université Columbia est universellement connu pour les travaux de recherches qu'il a entrepris sur les rapports qui existent entre la nutrition et la constitution des dents. Son film coloré est le résultat d'une de ses dix expéditions chez les peuplades esquimaudes et il est émaillé de constatations les plus intéressantes dans le domaine préventif de la carie dentaire et des maladies gingivales.

Le Dr Waugh, assisté de son fils, le Dr Donald Waugh, commentera lui-même sa pellicule cinématographique.

LISTE DES CONFERENCES

1. "La chimie et ses relations avec la dentisterie", par Léon Lortie, professeur à la faculté de Chimie de l'Université de Montréal.
2. "Tumeurs de la cavité buccale", par Ernest Gendreau, M.D., directeur de l'Institut de Radium de Montréal.
3. "Nouveaux moyens d'ancrage pour ponts fixes", par Rosario Lamontagne, D.D.S.

4. "Clinique sur l'anesthésie régionale par voie extra-orale", par Henri Lemieux, D.D.S., professeur à la faculté de Chirurgie Dentaire de l'Université de Montréal.

5. "Le diagnostique en vue d'une restauration prothétique", par Théo. Côté, D.D.S., professeur à la faculté de Chirurgie Dentaire de l'Université de Montréal.

6. "Clinique sur les obturations d'amalgame", par le personnel enseignant de la section de dentisterie opératoire de la faculté de Chirurgie Dentaire de l'Université de Montréal.

7. "Traitement de la pyorrhée", par Gérard Plamondon, D.D.S.

8. "Jurisprudence dentaire", par Philippe Brais, C.R.

9. "Présentation d'un appareil pour la photographie de l'intérieur de la bouche", par Josse de Wever, D.D.S.

10. "La médecine et ses relations avec la dentisterie", par Albert Lesage, M.D., professeur à la faculté de Médecine de l'Université de Montréal.

11. "Les accidents d'anesthésie locale", par Ernest Charron, professeur à la faculté de Chirurgie Dentaire de l'Université, de Montréal.

12. "Modernisez votre cabinet dentaire", par Conrad Godin, D.D.S.

13. "La carnivores et leur dentition", par Viger Plamondon.

14. "Iono-thérapie et iono-anesthésie", par A. D. Milot, D.D.S.

15. Présentation de la thèse primée au concours 1938 des finissants de la faculté de Chirurgie Dentaire de l'U. de M.

16. "Boîte aux questions", discussion conduite par La Société Dentaire de Montréal.

Des problèmes, d'intérêt très pratique et qui se soulevaient tous les jours dans le cabinet du dentiste, seront discutés par des membres de la profession.

- 1) Comment combattez-vous le saignement des gencives chez un patient de constitution apparemment normale et dont les dents sont propres?
- 2) Comment réparez-vous une incisive dont l'angle a été brisé?
- 3) De quelle manière extrayez-vous des racines atteintes d'hypercimentose?
- 4) Quelles sont vos contrindications à l'extraction?
- 5) En admettant que le remplacement des dents absentes est nécessaire au maintien de l'intégrité gingivale, comment complexez-vous ce besoin chez un petit salarié?
- 6) Que faites-vous quand un patient s'évanouit, au cours d'un traitement dentaire?
- 7) Considérez-vous l'amalgame comme une obturation permanente? Pourquoi?
- 8) Que préférez-vous pour une extraction générale? l'anesthésie locale ou générale?

Etude de l'Encyclique *Quadragesimo Anno*

POUR nous rendre à la demande de plusieurs acéjistes et aumôniers, nous commencerons la semaine prochaine, une série d'articles sur la pensée de Léon XIII et Pie XI relativement à la question sociale.

Désireux de rendre service le plus possible à tous les cerclistes qui veulent connaître l'opinion de l'Eglise sur les problèmes sociaux et tout particulièrement sur la crise actuelle, nous nous appliquerons à faire un exposé clair et précis des questions traités dans "Rerum Novarum" et "Quadragesimo Anno".

Voici le plan que nous suivrons et que nous conseillons à tous de garder afin de situer facilement les articles à mesure qu'ils seront publiés.

I.—LA QUESTION SOCIALE

1er article: Qu'est-ce que la question sociale? Comment elle se posait lors de la publication de l'encyclique "Rerum Novarum".

2e article: Pourquoi l'encyclique "Quadragesimo Anno"?

Le Pape Pie XI pouvait et devait intervenir.

II.—DEUX MEDECINS LE SOCIALISME ET L'EGLISE

3e article: Le socialisme offre un faux remède au mal social

- a) Que veut le socialisme?
- b) Réfutation de ses théories.

4e article:

- c) Le socialisme transformé.
- d) Aucun compromis possible.

III.—LE VRAI MEDECIN: L'EGLISE

5e article: Quelques enseignements de l'Eglise:

- a) Inégalité des classes.
- b) Nécessité du travail et de la souffrance.
- c) Considération de la vie éternelle.
- d) "Bienheureux les pauvres. . . ."

6e article: Le droit de propriété:

- a) Caractère individuel et social.
- b) Devoirs de la propriété.
- c) La propriété et l'état.

7e article:

d) Comment le riche doit-il user de sa fortune?

8e article: Capital et travail:

- a) Nécessité de l'un et de l'autre.
- b) Prétentions du capital.
- c) Prétentions du travail.

IV.—MAUX ET REMEDES AU POINT DE VUE DES INDIVIDUS

9e article: Répartition des richesses:

- a) Poignée de riches: multitude d'indigents.
- b) Il faut relever le prolétaire en lui donnant accession à la propriété par le juste salaire.

10e article: Le juste salaire:

- a) Un principe: Caractère individuel et social du salaire.
- b) Trois conditions à observer dans l'application de ce principe: La subsistance de l'ouvrier et de sa famille: la situation de l'entreprise; les exigences du bien commun.

V.—MAUX ET REMEDES AU POINT DE VUE SOCIAL

11e article: Pourquoi la restauration de l'ordre social?

- a) Libre concurrence.
- b) Dictature économique.

12e article: Comment restaurer l'ordre social?

- a) Réforme des institutions: Rôle de l'état: ses limites. Corps professionnels.

13e article: Syndicalisme catholique.

14e article:

- b) Réforme des mœurs: le grand remède.

Dans son mandement de prise de possession, Son Excellence Mgr Villeneuve disait en parlant de l'apostolat laïque: "Nous comptons surtout sur la jeunesse, la jeunesse de toute condition, depuis la jeunesse ouvrière et celle des campagnes".

Acéjistes de toute classe et de toute condition, nous devons donc nous préparer à remplir le rôle que notre bien aimé père attend de nous. Et cette préparation ne peut avoir de meilleures sources que les encycliques des papes. L'étude que nous entreprenons ici aujourd'hui n'est pas une interprétation des enseignements de Rome mais bien un fidèle écho des paroles de Léon XIII et de Pie XI. Aussi bien insistons-nous pour que les présidents de nos cercles fournissent à tous l'occasion de lire ces articles agencés spécialement pour être à la portée de tous.

Louis-Philippe Roy, M.D.
President du-Comité Régional.

Revue des Revues

"La préparation d'une dent pile pour une coiffe en porcelaine sur une dent vivante", par William A. Squires, D.D.S., New-York.

Les efforts du dentiste doivent toujours tendre vers la conservation intégrale de la pulpe dentaire. La préparation d'une pile pour une couronne de porcelaine offre plusieurs occasions de mettre la vitalité de la pulpe en danger: meulage trop prononcé, surchauffage de la dent, protection incomplète de la pile jusqu'à l'impression finale etc.

L'auteur donne des détails d'une technique pour préparer une coiffe de porcelaine pour une incisive supérieure; son article abonde de détails intéressants sur les différentes phases de cette opération et couvre tout le sujet depuis l'examen radiologique de la dent jusqu'au *cimentage* de la coiffe.

"A propos de l'absence des prémolaires", par le Dr L. Frison.

L'auteur, après une brève statistique des dents manquant le plus souvent, étudie les différentes causes des cas d'anodontie. Il indique les problèmes pratiques très importants posés par l'ab-

sence définitive des prémolaires, contrôlée cliniquement et radiographiquement. Il termine par la présentation de films illustrant des cas d'absence de ces dents et démontre combien ces films corroborent différentes théories émises à propos de rhyzalye. (La Revue Odontologique, livraison de mars 1938).

"La brosse à dent—son usage et ses abus", par Isador Hirschfeld, D.D.S., New York.

Le Docteur Hirschfeld continue sa série d'articles sur un sujet qui nous paraît banal à première vue, mais qui contient plusieurs données qui échappent au dentiste.

Ce mois-ci, l'article traite des débris de nourriture, qui se logent entre les dents et naturellement l'auteur est amené à parler des causes de cette anomalie, qui sont la disparition du point de contact, l'usure occlusale et la perte de l'appui proximal des dents. La question du point de contact, son rôle et les diverses lois, qui règlent son fonctionnement physiologique sont discutés à fond et d'une façon sérieuse. L'auteur y indique de plus les divers moyens de remédier à la perte du point de contact.

Le Cocktail

Qu'est-ce donc que le cocktail qui nous vient de la libre Amérique?

En anglais, cocktail veut dire "queue de coq", c'est-à-dire, panachée de plusieurs couleurs. Les formules de cette drogue malfaisante sont fort nombreuses. Dans toutes, le gin, le vermouth, le whiskey, l'angostura, sont les produits de base, tous aussi toxiques et même plus toxiques que l'absinthe et l'anis.

Les mille variétés de cocktails sont donc les produits à base d'essence éminemment toxiques, provoquant surtout, et très rapidement, des troubles de système nerveux.

"Le Vin"

Dr F. Dougnac.

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1938-1939

PRESIDENT

Stephen A. Moore.....London, Ontario

PRESIDENT-ELECT

W. W. Woodbury.....Halifax, N.S.

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

Stephen A. Moore (Chairman).....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
W. H. Woodrow.....Brockville, Ontario
R. L. Pallen.....Vancouver, B.C.
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

Stephen A. Moore (Chairman).....London, Ontario
R. L. Pallen.....Vancouver, B.C.
C. M. Fletcher.....Lethbridge, Alberta
G. L. Cameron.....Swift Current, Saskatchewan
M. H. Garvin.....Winnipeg, Manitoba
W. H. Woodrow.....Brockville, Ontario
Edward T. Bourke.....Montreal, Quebec
Ephrem Vinet.....Montreal, Quebec
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. A. McMurdo.....Summerside, P.E.I.

CHAIRMEN OF COMMITTEES

Dental Legislation.....J. Stanley Bagnall, Halifax, N.S.
Dental Health.....Harry S. Thomson, Toronto, Ontario
Dental Education.....A. D. A. Mason, Toronto, Ontario
Public Relations.....J. S. Lapp, Toronto, Ontario
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Canadian Army Dental Corps.....Ira Hamilton, Ottawa, Ontario
Journal.....To be appointed
Research.....To be appointed
Benevolence.....To be appointed
Ethics.....G. L. Prestien, Galt, Ontario
Indian Affairs.....Howard MacDonald, Saint John, N.B.
Constitution and By-Laws.....A. W. Faulkner, Halifax, N.S.
Nomenclature.....Gerald Franklin, Montreal, Quebec
Insurance.....A. E. Higgins, Toronto, Ontario
Necrology.....C. M. Fletcher, Lethbridge, Alberta
Archives.....J. Stanley Bagnall, Halifax, N.S.



AN ONTARIO BEAUTY SPOT—NEAR TORONTO.

Photo by Jay.

By courtesy of "SATURDAY NIGHT".

He is a happy man who has simplified his tastes to the point where a good book and a free and quiet evening are for him not a chore, or a sign of increasing age, but a preference and a badge of wisdom and distinction.—Sir Josiah Stamp.



C. H. BARR, D.D.S.

Montreal, Quebec.

President, Montreal Dental Club.
School Commissioner, City of Verdun.
Former Governor, College of Dental Surgeons,
Province of Quebec.

What is the Dentist's Responsibility in Regard to his Patient's Nutrition? *

by T. L. MARSH, D.D.S., Toronto, Ontario.

THERE are three factors to be considered in relation to this question. The first is: Has clinical and experimental experience established a connection between malnutrition and dental diseases which would justify the dentist in regarding nutrition as a question with which he is properly concerned?

The second is:—If the above question be affirmatively answered and it be recognized that nutrition for the organism as a whole is a joint responsibility of medicine and dentistry, what part of the nutritional problem properly falls within the training and jurisdiction of the dentist?

The third is:—Nutrition being a joint responsibility of medicine and dentistry, requiring in many instances the co-operation of members of both professions with a consequent opportunity for differences of opinion between them, what are the ethical responsibilities of the dentist to his patient and to the physician when such differences have arisen?

Disregarding completely the unconfirmed evidence of these medical and dental authorities who claim to have established by controlled experiments a direct connection between specific nutritional deficiencies and specific dental conditions, there is still ample evidence to

support the contention that nutrition is properly a matter of concern to the dentist.

The recognized results of malnutrition are impaired growth and development and lowered resistance to bacterial invasion. The degree to which these results may be clinically demonstrable will vary, but our inability to measure the extent of damage done should not be used as an argument against establishing prophylactic measures when the means of correction are known and the patient cannot, by any stretch of the imagination, be considered to suffer by their application.

Because malnutrition does adversely influence growth, development and the resistance to infection of the organism as a whole, of which the mouth and its associated tissues are an integral part, the dentist has a responsibility toward the nutrition of those individuals under his care.

What part of the nutritional problem properly falls within the training and jurisdiction of the dentist?

The nutritional problem of any individual may be divided as follows: (1) the ability of the patient to utilize food. With the exception of the masticatory efficiency of the patient which the den-

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

tist alone is competent to estimate, the problem of utilization is essentially the concern and responsibility of the physician. It is, however, the dentist's responsibility to refer the patient to a physician whenever he feels that the patient's ability to utilize food efficiently is in question. With reference to the diet of the patient, nutritional authorities have established standards for the various food elements required by individuals at the different age levels, and under varying normal conditions.

The dentist, in his training, is fully acquainted with these standards. He is quite justified and indeed has the responsibility of communicating this information to his patients whenever he has reason to believe that their diet is falling below these standards in one or more respects. In bringing about the necessary changes in the patient's regimen, the dentist may find it necessary to utilize various artificial concentrates of food essentials. This he is fully qualified to do. The only occasions upon which a dentist may be considered to be morally obligated to obtain the consent of a physician before instituting these prophylactic or corrective measures, is when the patient is already under the care of a physician when he consults the dentist, or where the dentist has reason to suspect that the patient has a condition which requires the attention of a physician.

Notwithstanding this, it is desirable and mutually beneficial to patient, dentist and physician, that the dentist discuss with the patient's physician the dietary measures he contemplates before they are transmitted to the patient.

What are the ethical responsibilities of the dentist to his patient and to the physician when the physician and the dentist fail to agree upon the proper methods to be followed? Rare and regrettable as such differences will be,

nevertheless, it is inevitable that where two professions overlap to the degree that exists in the question of nutrition, differences are bound to arise.

These differences are of three main types:

1. Those based upon misunderstanding as to what was said, done, or contemplated by either the physician or the dentist.

2. Those in which the dentist feels that his patient has failed to secure the requisite attention from the physician to which he has been referred.

3. Those cases in which the dentist and physician hold diametrically opposed points of view.

In regard to the differences based upon misunderstandings, these differences would never arise if the dentist made it a rule to communicate directly with the physician instead of trusting to the patient to pass on what will probably be a highly garbled version of the dentist's verbal instructions. To this end it is desirable that dietary instructions should always be given in writing to the patient. The responsibility of misunderstandings of this type between physician and dentist must be accepted by the dentist.

Where the dentist feels that the physician has failed to give proper consideration to a case referred to him for consultation, or treatment, the dentist should first make every effort to ascertain if the physician has really been indifferent or negligent in his attitude to the case under consideration.

The dentist should make every effort to personally contact the physician before taking further action. If in spite of these efforts upon the dentist's part he has failed to receive a satisfactory explanation from the physician, and the dentist is still of the opinion that his patient is suffering because of this alleged neglect, then his responsibility to his patient dictates that he advise that

patient of his opinion in the matter, and that he recommend that the patient consult another physician. When the dentist and the physician hold diametrically opposed points of view upon nutritional matters, the point of view expressed by the physician should be followed because

he is in the last analysis the one responsible for the well-being of the patient. The dentist may, however, inform the patient that such differences of opinion do exist and that the physician has assumed the responsibility for the results to follow.

*What is the Dentist's Responsibility in Regard to his Patient's Nutrition? **

by FREDERICK F. TISDALL, M.D., F.R.C.P. (C.).

(Reply to Dr. Marsh's paper.)

DR. MARSH has stated that when the dentist finds something wrong in his patient's mouth which he suspects is caused by an error in nutrition the dentist should send the patient to his physician.

I think we all agree that diet can and does affect the growth and health of the teeth and gums. For instance, it is universally recognized that the lack of vitamin D in early life, which results in the development of rickets, may result also in defective formation of the enamel of the teeth, so-called hypoplasia. The work of Dr. P. G. Anderson, Dr. C. H. M. Williams, Dr. H. Halderson, Dr. Cecil Summerfeldt and ourselves at the Hospital for Sick Children shows that a lack of vitamin D such as occurs in the ordinary Canadian diet doubled the development of new cavities under the conditions of our investigation with children. Bunting believes that sugar, by promoting the growth of *lactobacillus acidophilus*, is the one and only cause of caries. It is known that a lack of vita-

min A and a lack of vitamin C will affect the gums. We can conclude therefore that dietary defects can produce changes in the teeth and gums which can be readily recognized by the dentist.

The dentist then sends the patient to his physician. This raises the question—what evidences of malnutrition can we, as physicians, find? Our examination should include a thorough physical examination, which may disclose a focus of infection which we know can definitely affect the nutrition of the patient. Height and weight rarely give an accurate indication of the state of nutrition. Haemoglobin investigation can be done to determine the presence or absence of anaemia. In regard to vitamins, from the standpoint of the practising physician, laboratory tests to determine the adequacy of the vitamin supply in the body are still in the experimental stage. Blood phosphatase or blood phosphorus may indicate a lack of vitamin D. In regard to blood calcium, one must remember that a severe calcium deficiency

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

will take many years before the reserves in the bones are exhausted and changes can be noted in the blood. We can conclude, therefore, that these laboratory procedures, with the exception of the haemoglobin determination, at their present stage are not practical.

The most reliable way for the physician, in addition to his general physical examination, to determine whether or not his patient is suffering from malnutrition, is to analyze his food intake.

Dr. Marsh has stated that all too frequently the physician turns the patient back to the dentist, having made a physical examination and instructed the patient to take "a good nourishing diet." Specific enquiry should be made in regard to the calcium intake of the patient. Remember that to get an adequate supply of calcium it is almost essential for the small child to take a pint to a pint and a half of milk a day; the older child,

say 17 years of age, a full pint and a half a day, and the adult, from 25 years to 100 years of age, 10 to 12 ounces of milk a day, including that used in the cooking. The iron needs can be covered by supplying two vegetables a day besides potatoes, as well as an egg and possibly liver and kidney. The vitamin requirements can be covered by giving milk, egg, vegetables and fresh fruit, and for our nine winter months, vitamin D.

It is obvious that the physician must be prepared, not only to make a complete physical examination of the patient, but also to analyze the patient's diet in conjunction with the dentist. There must be close co-operation between the physician and the dentist. If the physician will not accept this responsibility jointly with the dentist and give specific instructions to his patient, it would appear that the dentist would be quite justified in referring his patient to another physician.

The need for dental care in this country is almost universal and only a small per cent of those needing such care are at present receiving it.

With the growing recognition of its value there is bound to be increased demands made upon the dental profession and unless the profession comes forward with a construction program with which to meet these demands, some other agency less well fitted will step in and assume control. In any program to control the situation, research must be given first place. Some effective measures for prevention must be found if the problem of the 80 per cent is ever to be solved; it cannot be done under present conditions of dental practice. The great outstanding need in dentistry at present and the one upon which the solution to our problem largely depends is endowments.—Arthur H. Merritt in New York Journal of Dentistry.

Which reminds me of a story that I read many years ago, of a little kingdom in Greece, where, in the middle of one of the most frequented country roads, a big fallen stone reposed. No one would take the trouble to move it; it wasn't his affair: and so, year after year, the carts went round it. During this time the King said nothing; but then, on a certain day, he convened his people at this spot and, after a few suitable remarks as to private duty, public service and the common good, he himself pried up the stone and pushed it away; thus disclosing a space beneath it in which was a bag of gold, together with a message stating that the money was a reward for anyone disinterested enough to perform the task of removal. No other than the King had placed the bag there; the King returned it to his pocket; the object lesson was complete.—E. V. Lucas in the "Sunday Times."

What Dental Conditions Influence Mental Health *

by E. P. LEWIS, B.A., M.B., Toronto, Ontario.

*Assistant Professor of Psychiatry, Faculty of Medicine, University of Toronto,
Director of Out-Patient Clinic, Toronto Psychiatric Hospital.*

THE answer to this question assumes a knowledge of both dental and mental health, and also of disorders in each of these fields, but as I have practically no knowledge of dentistry, except from a patient's point of view, I shall rely first of all upon Dr. Mitton's splendid presentation of actual dental conditions which may influence mental health, and then make some observations from a psychiatric viewpoint, firstly as to what mental health is and, secondly, some particular efforts to deal with mental disorders.

The mentally healthy individual is one who is so well integrated as to be able to follow some useful occupation, to be self-supporting under ordinary, normal economic conditions, and to live peaceably in the community. This practical functional definition does not imply that the individual must have a perfect mind, but rather that he must be able to adjust himself to the various circumstances and conditions of life. Failure to make successful adjustments, in certain individuals, may lead to definite mental disorders, necessitating hospital care, often of long duration. That this is serious may be seen from the fact that in December, 1934, there were 36,571 patients in mental hospitals in Canada, a ratio of 335 per 100,000 of population.

As psychiatric physicians we are concerned with the treatment of these

patients, using the best scientific knowledge available, not only to try to cure existing mental disorders, but also to try to prevent such breakdowns in others. At once we are faced with a wide variety of mental disorders with, in most cases, multiple causative factors. A broad general division of mental disorders into organic and functional groups is both practical and intelligible, for the first group includes those in which definite brain pathology may be shown. The several subdivisions of this organic group make up less than 40% of those who are mentally ill, while the functional group accounts for practically 60% and of these Dementia Praecox forms the largest part—about 40%, Manic Depression accounting for 16%.

The causes of these functional psychoses are still problematical, but several factors seem to combine aetiologically. Some have held that bacterial toxæmia from infective foci cause these mental disorders. You are doubtless familiar with the work of Dr. Henry A. Cotton of Trenton State Hospital, New Jersey, who aroused so much interest by his claims that focal infection was the cause of mental illness. His paper on "The Aetiology and Treatment of the So-called Functional Psychoses" read at the seventy-eighth annual meeting of the American Psychiatric Association, Quebec, June, 1922, reviews his theories and work in

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

detail. Cotton said at that time "The so-called functional psychoses we believe to-day to be due to a combination of many factors, but the most constant one is the intra-cerebral bio-chemical cellular disturbance arising from circulating toxins originating in chronic foci of infection situated anywhere throughout the body." He regarded infected teeth as the most constant focus. They occurred in all his patients. He mentioned unerupted and impacted teeth, periapical granulomata, carious teeth with infection, periodontitis, devitalized teeth with crowns, extensively filled teeth with evidences of infection, and gingival granulomata. He held that a thorough elimination of focal infection from the teeth could be obtained only by extraction.

Other principal sources of septic foci Cotton held to be the tonsils, gastrointestinal tract and genito-urinary system and his method of detoxication was by surgical procedure.

Cotton's claims for cures may be judged by the following—

"The successful treatment of 1,400 cases during the last four years with only 42 return cases now in hospital must be accepted as evidence that our recoveries in the last four years average 80% of this group as against 37% for a period of ten years prior to 1918 should be convincing. This is entirely due to the method of detoxication used."

These claims were so startling and became so widely known that other investigators became interested in the relation of focal infection to the psychoses in the hope of securing scientific knowledge to aid in prevention and treatment of mental disorders. The most outstanding piece of work was done at the Psychiatric Institute, Ward's Island, New York, under its Director, the late Dr. George H. Kirby. In the same year, 1922, another paper was read also at the Quebec meeting of the American Psy-

chiatric Association by Drs. Kopeloff and Cheney of the Psychiatric Institute, New York, on "Studies in Focal Infection: Its Presence and Elimination in the Functional Psychoses." Their findings differed widely from those of Cotton. In 1923 at the seventy-ninth annual meeting of the American Psychiatric Association held in Detroit, Drs. Kirby and Kopeloff read a further paper on "Focal Infection and Mental Disease." They stated that the work was stimulated by the claims of Cotton and was done with the utmost care. One hundred and twenty patients were studied and they were divided into two groups, one as a control group and the other operated upon. The series operated upon numbered 58, while there were 62 controls. Care was taken to balance the two groups as to types of mental disorder, duration and probable prognosis, types of infection such as teeth, tonsils, etc. The duration of the disorders was from a few weeks to a few years. There were 33 cases of Dementia Praecox operated upon and 32 cases in the control group. Of Manic Depression 20 cases were operated on while 25 were controls. There were 5 each miscellaneous. 22 of the 58 operated cases improved or recovered, 15 being in the manic depressive group and of these 8 were recoveries. Of these 22 cases, 6 improved before treatment began, 4 improved within a month, 9 in 1 to 2 months, and 3 later. The number of improvements and recoveries in the control group was similar. From the 58 patients in the operated group, 253 teeth were extracted. Whereas Cotton had maintained that all impacted molars were infected, Kirby's results did not support this. The paper goes into detail about bacteriological methods used. It is of interest to note that in the control group there were 10 unerupted and 14 impacted teeth, while in the operated group there were 19 im-

pacted and 6 unerupted teeth. One case out of six recovered in the control group and two out of nine in the group operated upon.

The authors concluded that "in the series of 120 cases showing manic-depressive, dementia praecox and psychoneurotic reactions the removal of focal infection in 58 cases did not result in a higher percentage of improvement or recovery than in a comparable group of 62 cases in which foci of infection were not removed." In all the cases operated upon that recovered, a recovery had been prognosed before treatment began. They felt that "it is desirable to eliminate focal infection when adequately shown in psychotic patients just as one should try to relieve any physical disorder in such patients." They conclude that "it has not been shown that focal infection is the aetiological factor in the functional psychoses."

Such widely divergent results naturally aroused considerable controversy, but the work done at Ward's Island was done so thoroughly that it was generally accepted. One finds that in England and Scotland the discussion was taken up by prominent physicians and surgeons. Cotton's chief supporter was Dr. William Hunter, whose interesting paper is in the *British Medical Journal* of November 5, 1927. Sir Berkeley Moynihan leaned toward this viewpoint, as did also Graves and Pool, but eminent British psychiatrists such as D. K. Henderson of Edinburgh, Menzies, Gillespie and others upheld Kirby's work. One finds also that the late Dr. Hobbs, of Homewood Sanitarium, Guelph, made a survey of American and Canadian psychiatric opinion as to "Focal Infections as Causative Factors in Functional Psychoses" and their experience and opinions are that Dr. Cotton was much too optimistic about his methods of surgical detoxication.

If I have emphasized the matter of

focal infection it is because I have found that it had a prominent place in psychiatric circles a few years back and I feel it was scientifically investigated and relegated to its proper place. Dr. Kirby had some further contribution in the *Journal of Mental Science* in 1929, emphasizing the fact that focal infection is not the essential causal factor in mental disorders, that so far we have no means of properly evaluating the relative importance of the various causative factors, but that nothing should be left undone physically or mentally to restore the patient to normal condition.

REFERENCES

1. The Etiology and Treatment of the So-called Functional Psychoses. Summary of results based upon the experience of four years.
Henry A. Cotton, M.D.
American Journal of Psychiatry, October, 1922. Vol. 2, No. 2, pp. 157-194.
2. Studies in Focal Infection: Its Presence and Elimination in the Functional Psychoses.
Nicholas Kopeloff, Ph.D.
Clarence O. Cheney, M.D.
American Journal of Psychiatry, October, 1922. Vol. 2, No. 2, pp. 139-156.
3. Focal Infection and Mental Disease.
Nicholas Kopeloff, Ph.D.
George H. Kirby, M.D.
American Journal of Psychiatry, October, 1923. Vol. 3, No. 2, pp. 149-197.
4. Chronic Sepsis as a Cause of Mental Disorder.
 1. Relation of Focal Sepsis to Mental Disease.
William Hunter, C.B., M.D. Edinburgh, F.R.C.P. London.
British Medical Journal, Nov. 5, 1927.
 2. Relation of Aberrant Mental States to Organic Disease.
Sir Berkeley Moynihan, Br. M.S.
British Medical Journal, Nov. 5, 1927.
5. Focal Sepsis in Mental Disorder: The "Pathogen-selective" Method of Diagnosis.
Arthur Pool, M.D., B.C.L. Liverpool, M.R.C.P. London.
Journal Mental Science, 1931. Pp. 137-150.
6. The Diagnosis and Treatment of Some Physical Factors in Nervous Breakdown and Incipient Mental Disorder.
W. A. Potts, M.A., M.D.
Journal Mental Science, January, 1935. Pp. 267-264.

7. The Relation of Focal Infection to Mental Disease.
Nicholas Kopeloff & George H. Kirby.
Journal Mental Science, 1929. Pp. 267-270.
8. Chronic Sepsis as a Cause of Mental Disorder.
William Hunter, C.B., LL.D., M.D. Edinburgh, F.R.C.P.
Journal of Mental Science, October, 1927. Pp. 549-563.
9. Chronic Sepsis and Mental Disorder.
T. C. Graves, B.Sc., M.D., F.R.C.S.
Journal of Mental Science, October, 1927. Pp. 563-6.
10. Oral Abscesses.
Kurt Herman Thoma, D.M.D.
Boston: Ritter & Co., 1916.
11. Mouth Infections and their Relation to Systemic Diseases.
MacNevin and Vaughan.
1933. Vol. 2. Pp. 121-137.
12. Psychiatry.
Henderson and Gillespie.
Oxford University Press, 1936.
Chapter 3—Focal Infection.

What Dental Conditions Influence Mental Health *

by GLENN T. MITTON, D.D.S., Toronto, Ontario.

THE subject as given would suggest a preventive aspect to the study of conditions influencing mental health.

The mutual relationship between oral and dental conditions, and physical health is generally conceded to-day.

The Modern School of Psychiatry treats a mental disorder as an illness or disease, the aetiological factors of which are many and varied. Among the exciting causes are first, physical; second, mental; third, environmental. Mental disorders of physiogenic origin may have among their exciting causes such contributory factors as, toxins, bacterial infections, disease, fatigue, trauma and endocrine disturbances.

In psychiatric practice it is customary, according to a recent book published on "Theory and Practice of Psychiatry", first to correct all physical defects. The author says, "It is the practice to examine the patient thoroughly, to correct all associated functional disorders and properly to treat any organic or functional complications."

This practice of thoroughly examining the patient, must necessarily preclude all possibility of oral sepsis or dental infections. This necessitates a thorough roentgenographic and clinical survey of the mouth. All infected periapical areas around the teeth must be located and removed. Periodontal pockets must be located, diagnosis and prognosis made, and treatment or extraction completed. Tests for vitality of teeth should be made and all questionable teeth treated or removed. Embedded root tips, supernumerary teeth, cysts and impacted teeth should be removed. Carious teeth should be treated and filled. Associated functional impairment of mastication should be corrected by properly designed prosthetic appliances.

The preventive aspect of this problem in promoting physical and mental health, must necessarily begin with the early embryological development and growth of the child. Much work has been done in the study of factors influencing growth and development, and much remains still

*Read before a combined meeting of the Academy of Dentistry and Academy of Medicine, Toronto, January 12, 1938.

to be done. In this study of development, the fields of neurology and dentistry have certain associations. I quote Dr. Roland McKay, Department of Neurology, University of Illinois. He says "It is indeed a truism that no two branches of biologic science are dissociated, that all biology is a unit and that our conventional divisions of it are artificial. As far as the fields of dentistry and neurology are concerned, they should be especially close, since both nervous system and the teeth are of ectodermal origin, and present certain parallels in their embryological development." We are all familiar with developmental abnormalities of the teeth and supporting tissues, which so often accompany mental deficiencies. These include extreme degrees of malocclusion, high, narrow arched palates. Barnes tells us that 80% of mentally abnormal people show developmental malformations of the teeth and jaws. We are familiar with Hutchinson's teeth, associated with mental defects and congenital syphilis. Fournier states that such dental defects are not always diagnostic of congenital syphilis but are met often in mental defectives apart from syphilis.

Early in the child's life, from pre-school age on through adolescence, many indices of mental and environmental problems are reflected in behaviour in the dental office. The study of "personality problems" in children, such as behaviour reactions, habits, emotions, childhood traits of character, juvenile neuroticisms, home situations influencing behaviour, and attitudes towards life, shows many of the early signs of developmental psychic aberration. These early diagnostic indices should suggest a consultation on the part of the physician, dentist and psychiatrist, when early preventive treatment could be started.

Under the classification of "Exciting Causes of Mental and Nervous Dis-

orders", we mentioned first, "Physical Causes", where we believe dental conditions may be contributory. The sub-headings are toxins, infections and disease. It is an understood fact in mental and nervous disorders, that causes may be multiple, but it is the duty of the dental diagnostician to preclude all possibility of dental and oral infections as primary factors. While it would appear in the light of recent investigation that the extremely radical view on the theory of focal infection as a causative factor, has become somewhat more conservative, still we find an authoritative neurologist in a recent article, speaking of dental foci, who sums up as follows: "In any chronic infectious disease of the nervous system, all devitalized teeth should be removed, even though actual apical disease may not be demonstrable." The Chief Psychiatrist and Director of the Chicago Institute of Research and Diagnosis, while he is very conservative on the theory of focal infection, has this to say: "Bacterial toxins unquestionably irritate the nervous system and in many predisposed individuals may precipitate nervous breakdown and even definite psychoses." Later opinion in the study of periodontal lesions, would suggest that infected periodontal pockets may have an even greater part to play in systemic sequelae. A great deal has been written on impacted teeth and their relationship to psychopathology, much of which has been, to a certain degree, discredited. The recent work of Logan would discount the focal infection theory in totally embedded teeth, but in his summary, he says: "In spite of the foregoing statements and summary of findings, it is held that embedded teeth in radiographically normal structures should be removed, when it is thought that they are accountable for or influencing certain neurologic phenomena." Mr. C. Bowlder Henry of London in preparation of 1935

Hunterian Lectures, writes in the *Journal of Neurology and Psychopathology*, regarding 700 cases reported on the "Neurological Complications of the Third Molar Tooth." He says: "In some (cases) the patients had been treated by neurological methods for considerable periods of time, only to be relieved immediately as soon as the real cause was discovered."

A progressive report on a survey recently begun at the Ontario Hospital, Toronto, by the Faculty of Dentistry under the supervision of Dr. Ellis, shows some interesting facts:

In all 39 patients were examined: 25% or 10 appeared with 20 areas of periapical involvement; 20% or 8 patients appeared with 14 embedded teeth; the average age of this latter group was 24½ years; Altogether 17 presented themselves with periapical areas and embed-

ded teeth, so of the 18 in both groups only one appeared with both periapical areas and embedded teeth. Unfortunately 4 of the first group with 11 areas of involvement were discharged without the recommended treatment being given. One with one embedded tooth was discharged without the tooth being removed.

While mental disorders are known to be cyclic in progression, it is therefore necessary to follow up cases over a period of years, before correlative studies to determine the aetiological factors, will be of much value.

We believe, however, that to contribute fully to the welfare of an ever increasing population of mentally ill, a program of prevention is necessary. All sciences dealing with health, or any contributory part thereof, must necessarily contribute their share. Dentistry, mutually co-operating with medical science, is prepared to carry its responsibility.

Problems in Dental Practice

by WILLIAM G. S. McLENNAN, D.D.S., Mimico, Ontario.

THE dentist, qualified by long years of study followed by some years of experience, is worthy of adequate remuneration for the service he renders. The time spent at the chair must provide a dentist's annual income in addition to all office expenses.

Tasks, such as the receiving and dismissing of patients, sterilizing of instruments, answering the telephone, making appointments, caring for supplies, sending out accounts, etc., are necessary but could well be done by an assistant if the dentist were working a reasonable number of hours at an adequate fee per hour, and thus was in a position to employ such a person.

One of the difficulties encountered in obtaining a reasonable fee is the fact that patients can secure dental service at the hospitals and infirmaries for a pittance.

Another difficulty is due to the fact that so many dentists are lowering fees in order to meet competition which is really a two-edged sword, as the dentist does not receive reasonable remuneration and the public does not receive a high quality of service. I believe that patients are willing to pay a fair fee for good service and that the fault is with ourselves. Of course, oppressive and unreasonable fee fixing should not be tolerated, but on the other hand, the dentist who works 12 to 14 hours a day and

for a paltry fee so that even he is not making a fair living, is as great a menace to the profession as the illegal dental practitioner. He not only starves his confrères, but wears himself out, deprives his wife and family of his time, adds nothing to community life, and gives the impression that a legitimate fee is unreasonable.

Dentistry has a different set-up than medicine. Most people require to consult a physician from time to time, while there is only so much dental work in each community to be done, and once a patient reaches the full denture stage he can be considered as through with dentistry since he has not been educated to the necessity of upkeep with regard to his dentures. The result is that unless the public is educated to the great economic and health value of our services the amount of dental service required will remain almost stationary and by cutting fees to obtain this limited amount of work no one is getting his just due. Let us give our patients the benefit of modern dentistry by attending clinics, conventions, etc., and the dentist "around the corner" a chance to live.

We have capital invested in equipment. We have time and capital invested in five years of college training without remuneration. We have gone through the lean, hungry years of early practice building. Surely we should have an annual income equivalent to that of other learned professions. The High School Teachers Federation has decided upon \$1500 as a minimum, yearly salary, and

this is paid largely to young women. Locomotive engineers, with no university training, no unremunerative time while obtaining their training, and with no equipment investment make about \$2500 per annum, if reasonably busy.

How many days have we in which to make our annual income, at what Richard Crooks aptly said was "a difficult job"? After deducting Sundays, Saturday afternoons, two weeks vacation (we should have more), Civic and Dominion holidays, days lost from broken appointments, unforeseen events such as sickness, attendance at funerals, etc., we have not more than 245 days out of the total 365 in which to make our annual income. (Medical doctors make calls Sundays and holidays.) From these figures it is a simple matter to figure out how much we have to take in each, and every working day, in order to pay our office costs, and take care of the family budget.

If there were more community dental clinics, each dentist specializing within reasonable limits and all doing operative work; if there were more license suspensions for unfair confrères; if we were all making a reasonable annual income; if more graduates were employed doing dental work for all public, separate and high school pupils, if a fairly adequate service was given to indigents; if we met more frequently and found out that we had much in common; then, and only then, we might recapture that white flame of enthusiasm which we had when we enrolled in our first year at college.

Fears grow strong as energies grow weak. A rested nervous system is courageous, ready to face things; a tired nervous system is cowardly and apprehensive. A rested nervous system is confident and steady; a tired nervous system is besitant and shaky.

Chronic fatigue makes every effort a pang. And there are other and more subtle ways in which fatigue induces all sorts of queer feelings. How often in answer to the question, "What's the matter with you?" does one hear, "Oh, nothing; I'm just tired." "Just tired" is a long story.—Joseph Jastrow in "Hygeia."

Report of Committee on State Dentistry of the Canadian Dental Association

(Presented at the House of Delegates Meeting, Vancouver, July 1, 1938.)

I HEREBY submit the report of the Committee on State Dentistry for the term of office now closing.

I was reappointed Chairman of the above Committee at the last convention of the Canadian Dental Association, and duly notified. After some consideration, the following members were reappointed to the executive committee: F. J. Conboy, A. W. Ellis, A. J. McDonagh, E. C. Veitch, J. C. Devitt, E. T. Guest, C. W. Trotter.

Dr. F. J. Conboy was appointed secretary-treasurer of the executive committee.

The provincial delegates reappointed the same members to this committee with the exception of Alberta, in which case Dr. C. M. Fletcher replaced Dr. V. H. Macaulay.

The activities of this committee for the year 1936-37 consisted chiefly of further studies of existing health insurance systems. Particular attention was given to the advancing trend of social legislation in Canada. Several contacts were made with the Secretary of the Canadian Medical Association for the purpose of keeping informed as to the activities of the Canadian Medical Association in the matter of health insurance. Your committee has enjoyed a very cordial relationship with the Secretary of the Canadian Medical Association in the above matters.

Early in 1937 the Dominion Government at Ottawa passed an Order-in-Council appointing a Royal Commission to

enquire into Dominion-Provincial relationships with regard to finance, taxation, public services, etc. Hon. N. W. Rowell was appointed Chairman of the Commission.

Your committee communicated with the secretary of this Royal Commission to ascertain the scope of the enquiries and if dental service would be included. The secretary replied in the affirmative, and requested the Canadian Dental Association to prepare a brief rather than have separate briefs from the various provinces. Your committee proceeded immediately to gather the necessary information and prepare the brief.

Each provincial delegate and each member of this committee was notified immediately of the plans; a questionnaire was prepared and sent out through the delegates to the provincial organizations.

Your committee was very pleased with the co-operation of everyone concerned in the accumulation of the necessary information.

After the information was accumulated, a draft plan of the brief was prepared and sent to each provincial delegate and members of this committee for his consideration, with a request to have it submitted to the provincial bodies if possible.

The interest shown in the preliminary draft and the promptness with which it was reviewed and returned from all the provinces was very gratifying to your committee. The suggestions received were

studied and included as completely as possible in the final draft.

Three hundred copies of the final draft were printed at the request of the secretary of the Royal Commission. Seventy-five copies were mailed on April 12th to the Commission research staff at Ottawa.

Formal presentation of the brief was made to the Commission in Toronto on May 9th, 1938, by the committee chairman, Dr. J. S. Lapp, accompanied by the secretary, Dr. F. J. Conboy. A copy of the brief is enclosed with this report.

Your committee is pleased to report that there are on file more than thirty letters of endorsement for the brief from the provincial delegates and officers of the various provincial associations. These letters are complimentary in their tone and reflect a degree of satisfaction at the manner in which the Canadian Dental Association is looking after the interests of the Canadian dentists.

Your committee has received \$150.00 in grants from the Canadian Dental Association. Expenditures to date amount to \$123.43, leaving a balance on hand of \$26.57. A detailed statement is enclosed with this report.

With your permission I would like to close this report with some observations and suggestions.

In my opinion, the name "State Dentistry" is probably not the most suitable title for this Committee. It would seem to imply a certain amount of bias on the part of the Canadian Dental Association. "Public Relations Committee" or some other suitable title might be preferred. I would suggest that this be given some consideration at your sessions.

I would also suggest that some consideration should be given to the scope of responsibilities of this committee so that there would be no overlapping with other committees such as your Public Dental Health Committee.

In some Provinces at present, consideration is being given to industrial dentistry. Should this be a matter for investigation on the part of this committee?

Your committee has had requests from University and reference libraries for copies of the brief. Should copies be sent to University libraries other than those that have requested them? Would you leave this to the judgment of the committee?

Your opinions or actions on the above would be helpful to the chairman of the committee.

JOHN S. LAPP, *Chairman*,
Toronto, Ontario.

Report of Committee on Dental Education of the Canadian Dental Association

(Presented at the House of Delegates Meeting, Vancouver, July 1, 1938.)

IN PRESENTING this report as from the Committee on Dental Education in Canada it should be explained that after consultation with your Secretary, it was decided that instead of constituting a

committee as heretofore, your designated Chairman might report on some matters that have recently occupied the attention of those who, through connection with the Dalhousie University Dental School,

are more particularly charged with dental education in the Maritime Provinces.

Without attempting to open the vexed question of the logical position of dentistry in our social organization—i.e. whether it should remain a separate profession or become a specialty of medicine—it is obvious that of late years one of the chief concerns of dental educators has been to effect a closer integration of the pre-clinical biological sciences common to both medicine and dentistry and the dental clinical subjects. This has been dealt with in an article by Hatch in the February 1937 number of "The Journal of Dental Education." After reviewing the attempts made during the past twenty years to strengthen the dental course by adding to the pre-dental and professional years, the opinion is expressed that the result achieved by this addition of academic time has been disappointing. Too many students still think of the pre-clinical and clinical subjects as belonging to separate categories. They sometimes refer to them as the "scientific" and "dental" subjects, the first to be endured so that the second may be reached. Dr. Hatch suggests that the blame for this state of affairs rests more heavily on the dental clinical teachers than on the pre-clinical teachers. He says that "the science teachers are doing a better job teaching the sciences to dental students than we as clinical teachers are doing in applying these sciences in our clinics." The student does not find the clinical teacher making that use of the medical sciences in diagnosis and treatment that he might reasonably expect, considering the amount of time he has been required to devote to these subjects.

While these are exceptions, we are convinced that this is very largely true. The cause is to be found in the type of dental education that has produced the present generation of clinical teachers, the most thoughtful of whom are fully aware of

the situation. The remedy lies not in adding more time or more subjects to the dental course, but in clinical teaching grounded in the fundamental sciences and their clinical application. Teachers so grounded will quite naturally apply the scientific method at the chair. Until this becomes the rule, it is to be expected that the atmosphere of the dental clinic will encourage in the early professional years a keen interest in dental techniques and a half-hearted interest in the medical sciences. Interest in the medical sciences will be stimulated in proportion to the demand for such knowledge during the student's clinical years, and this demand must originate, largely by example, with the teachers of the clinical dental subjects.

There is no room for complacency in the dental educational field. The following is from the opening paragraph of a report issued by the United States Public Health Service in May of this year (Public Health Reports, Vol. 53, No. 19, May 13, 1938, p. 751) "Dental caries is generally recognized as a physical impairment which exceeds in prevalence all others known to occur in children of the United States. Although the use of the toothbrush, dietary regulation, prophylactic odontotomy, and the application of chemotherapy (silver nitrate) have been suggested and advocated, no effective method for the control and prevention of caries has been accepted other than the replacement of the carious tooth structure by chemically stable filling materials." This appears to be a reasonable statement of the present condition of affairs, although it is not in line with a great deal of our literature. The paragraph concludes as follows: "The great importance of the caries problem, particularly from a public health standpoint, stimulates inquiry concerning the possibility of developing, through research, other methods of control which are less expen-

sive, more effective, and better adapted for widespread application by practising dentists."

Very little is known of the aetiology not only of caries, but of periodontal disease, and malocclusion. Students of intellectual capacity are needed who will undergo the training necessary to investigate these problems. Dentistry has not to date attracted this type of student to any notable extent, and it is not likely to do so while technical skill remains the chief objective of our educational process.

Thus dentistry presents a vicious circle. It needs men of the student type to solve its difficulties and at the same time, clings to educational objectives that do not attract them. If dentistry accepts the responsibility for breaking this vicious circle, the logical point of attack appears to be the field of dental, clinical practice, both in college and out. The need for sound and careful technical training as part and parcel of dental education is

obvious. The issue raised here is whether it is to be the chief end of such education, or the means to a larger end; whether the student's interest should be centered in technical procedures as such or in the patient as an individual, and in the contribution sound dentistry can make toward his health and well being.

It is understood that the terms of reference of the Committee on Dental Education include not only undergraduate education but also postgraduate instruction and the furnishing of dental information to the public. It is thought wise, in this report, to concentrate attention on the specific question developed above with the conviction that if this issue is squarely met not only by the teachers in our colleges, but by the average interested member of the profession in his practice, the postgraduate instruction demanded will be of a higher order and information furnished to the public will be on a sounder basis.

WM. W. WOODBURY, *Chairman*,
Halifax, Nova Scotia.

Report of the Necrology Committee of the Canadian Dental Association

(Presented at the House of Delegates Meeting, Vancouver, July 1, 1938.)

THERE were 75 deaths among registered dentists in Canada between October 1, 1936, and June 1, 1938. In the various provinces, they were as follows:

British Columbia	4
Alberta	9
Saskatchewan	5

Manitoba	3
Ontario	31
Quebec	13
New Brunswick	3
Nova Scotia	6
Prince Edward Island	1

HOWARD W. MACDONALD, *Chairman*.
Saint John, New Brunswick.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office," 314 Somerset Building, Winnipeg.

*A Treatise on Dental Office Practice**

by W. N. MILLER, D.D.S., Flint, Michigan, U.S.A.

(Continued from August issue)

MANY otherwise up-to-date patients are still accepting service of dentists whose customary fee for "cleaning" is \$1 or \$2. Every dentist and every thinking patient should know that service worthy of being called a prophylactic treatment cannot be given at that fee with any financial return to the operator.

We will presume that a thorough semi-annual examination of the mouth following a very thorough cleaning consumes a one-hour period, and your usual fee ranges from \$6 to \$12, which scale covers 95 per cent of the offices which are attempting service above the average. The patient whom you have met socially might make an appointment at which you would clean the mouth to the best of your ability, and in a manner which would definitely impress the contrast between a real service and a haphazard one. Then when your fee was made known, it might be easily understood.

If, on the other hand, the patient had asked, upon being seated in the chair, or of the assistant, your usual fee for an ordinary cleaning (which is the exact wording of a very frequent inquiry) and

had been told, the effect of such information might prevent your ever obtaining the opportunity to serve the patient in a way which would naturally please him.

In the majority of cases, I prefer to render the service especially well, possibly discounting a portion of my time, charging it to business policy, and then present the fee to the patient, trusting to the type of service I render and my ability to explain to the patient the need for it. Such a situation need never present itself after the appointment at which the thorough cleaning of the mouth is given.

When a prospective patient calls by phone and asks my assistant, "What does Doctor Miller charge to clean teeth?" she is putting my office management policy to its most serious test. Here we have an unknown person on the other end of a telephone wire where our only sense of judgment concerning her type must come from her choice of words and the inflections of her voice. The proper tactful explanation will bring this person into our office where our opportu-

*Presented before the Academy of Dentistry at Toronto, March 29, 1938.

ities to impress her with our desirable qualities are greatly increased. The wrong choice of explanation drives her from us before she has had half a chance to become acquainted. At every phone contact a poorly trained assistant might cost me more than her weekly salary.

Here is a sample of my assistant's approach to a satisfactory handling of this question:

The phone rings, my assistant is seated at her desk perhaps making an appointment with a patient we have just dismissed or writing a receipt. She will say as she reaches for the phone receiver, "Excuse me just a moment, please." Then into the phone transmitter with a carefully studied rising inflection. "Doctor Miller's Office." From the unknown comes this question, "Could you tell me how much Dr. Miller charges for cleaning teeth?" In the instant that this query consumes, my assistant has to decide that here is a patient whose good taste and telephone manner bespeaks intelligence above the average. Some would abruptly demand, "What does Doc charge fer cleanin' teeth?" In any event she will be chagrined if she cannot so impress this person, whose interest in us has reached the point of a phone call, that she will come in to the office to sample our care, so she says in a most thoughtfully explanatory manner, "Doctor Miller doesn't have any set fee for a routine scaling and polishing of the teeth. He feels it is unfair to charge as much for that service in a well cared for mouth as in a neglected one, but he does make a fee of five dollars to any one unfamiliar with the amount of care we give to this most important part of our service. For this fee he will give much more than the average care to cleaning the mouth. He will also give you a new type of brush and teach you to use it. We believe that your home care is as important as our regular cleaning. (After you have

tried our care once you will be able to judge for yourself of its value and after that we will charge a fee depending on the care you give your mouth at home.) The most of our adult patients pay from eight to twelve dollars for this service and feel that it is indispensable. We will be pleased to have you come in and see what we can do for you." This last little sentence is an invitation and usually the inquirer will say, "When can I have an appointment?" My assistant then will say, "Which is more convenient for you—a morning or an afternoon appointment?" If the answer is afternoon, my assistant will select two open periods within a week if possible and say, "Could you come as early as one-thirty next Tuesday afternoon or would three o'clock on Thursday suit better?" When the appointment is agreed upon she will say, "What is your name and address, please? I will mail you an appointment card so that you will be sure of the right time."

This conversation takes less than two minutes and by knowing just the information desired, my assistant has given all of the pertinent details without having made the caller "drag" them out by questions. If the prospective patient decides not to make an appointment just yet my assistant will say, "We thank you for calling and hope we will be able to serve you. If you have any other questions don't hesitate to ask us." Don't forget too, that she has made an added impression of our courtesy and thoroughness on the patient who has been waiting at her desk. Patients will comment to me about my assistant and to her about me. Our most coveted compliment is a patient's expression of our "thoughtfulness".

I believe that my assistant will get 60 per cent of these people into our office where the pleasant atmosphere of combined helpfulness and businesslike dispatch and evident cleanliness can reassure

them. I know that my manner of administering a thorough prophylaxis and mouth examination will speak for itself, but there are many important steps in office management to be handled intelligently before I can get the opportunity to render this service.

A man came to my office through a contact in a club composed of business men. A number of my regular patients were friends of his and still I had no way of knowing whether or not he had consulted them before coming to me, and I had no opportunity of asking him what service he wanted because his secretary had called my assistant, saying that Mr. Doe wanted an appointment with the doctor to have his teeth cleaned.

After performing this service and relieving a traumatic condition in the right bicuspid region, I found no need for restorative work. I did show him how to use a toothbrush to more thoroughly cleanse a few places which he was habitually missing. He was taking more than average personal care of his mouth and had been served very well by a dentist of another city where business contacts had made it more convenient to keep appointments. At the end of the month his statement for \$13.00 came back, accompanied by a check and a little notation asking if this fee covered any other items than the cleaning and the toothbrush which I had given him. The following letter was addressed to him:

Dear Mr. Doe:

Thank you for your \$13.00 check and let me answer your questions concerning the fee.

The toothbrush was \$1.00, and the remaining \$12.00 is somewhat less than my usual fee for that same amount of service. I always have a feeling when someone comes to me for dental service, and I am not sure that they are referred by some other patient but may have come

because of some social contact, possibly they will not place the same value upon my services that I or my regular patients do.

Yet I am hardly in a position to be able to state the probable amount of the fee, since such a course might drive away some of my best friends. I do always welcome an inquiry concerning the fee for an oral prophylactic treatment, and I always submit an estimate of any proposed repair work that is found to be needed. I hope that the care you received in the cleaning of the teeth and the grinding of those surfaces which were causing a recession of the gum by striking at wrong angles, and my interest in suggesting a change in your manner of brushing the teeth will seem somewhat commensurate with the fee involved.

Sincerely,

It is very easy to antagonize a patient under such circumstances by failure to make a very frank and careful explanation. I find it never pays from a friendship standpoint to be arrogant or arbitrary concerning my fees. I am ordinarily very definite and firm but try to be humble in my acknowledgment of the fact that the patient is thrown entirely on my mercy, and has naught by which to judge the quality of my care, excepting confidence in me and in those by whom referred.

An example of a case follows in which a follow-up letter can be applied judiciously:

A young school teacher, resident in the city, has been referred by a patient, also a teacher, who has been in my practice several years. The usual thorough prophylaxis has been completed, full mouth roentgenograms have been obtained, a complete mouth survey has been made and studied under the light of a thorough questioning concerning the family

tendencies. The proposed work has been explained to the patient and an approximate fee quoted. Appointments have been made to continue the work, the patient having known at first appearance that this type of thorough examination and estimation was to cost a certain amount without further obligation to proceed with the advised care. By the time for the first appointment at which the general repair of the mouth was to be started, we were advised by telephone that the patient had decided not to have us continue the work. The appointments were cancelled, and within a few days, the following letter was addressed to her:

Dear Miss Doe:

I wish to thank you for your check and am taking this opportunity to express my regret that we are not able to serve you at this time.

I feel that you cannot fully appreciate the value of a thorough mouth diagnosis unless you have the work completed so that you may compare the usual haphazard method of repair with one followed out on a definite plan.

While it is true that your x-ray films are a part of our diagnosis and are the property of our office, we will be very glad to have you use them at any time if you can effect a saving thereby.

If you should change your mind in the present matter, or if at any future time we may serve you, we shall indeed be pleased.

Sincerely,

Let me summarize:

1. There are "breakers ahead" for seventy-five per cent of the dental practitioners if they do not "clean house" and practise intelligently.

2. The lack of an adequate correlating course in our college precludes the possibility of success for the majority of dental students. Only those with special business training or natural aptitude will progress.

3. Even with immediate addition of such a course to the dental curriculum, the impending change in dental practice may come before results can be obtained.

4. One way of augmenting your financial return and consequent interest in self-improvement is to cultivate honesty with the diplomatic approach.

5. In the words of a modern Mark Twain, "Whatever profession you're in, Gentlemen, if you are honest, sincere, trustworthy, and give service, success will generally take care of itself; but there are other things very important too. For one, you've got to study your customer and act accordin'."

Conventions

EASTERN ONTARIO DENTAL ASSOCIATION, KINGSTON, ONTARIO, SEPTEMBER 26-27.

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

TWENTY-FIFTH ANNIVERSARY MEETING OF THE AMERICAN ACADEMY OF
PERIODONTOLOGY, CORONADO HOTEL, ST. LOUIS, MISSOURI, OCTOBER 20-22.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

14TH GREATER NEW YORK DENTAL MEETING, HOTEL PENNSYLVANIA,
NEW YORK CITY, DECEMBER 5-9.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM SASKATCHEWAN:

What treatment can be used to check caries in the teeth of a patient under three years of age? I have tried Howe's solution, but find it extremely hard to keep the teeth dry, even with the use of compressed air. In a patient so young I find it next to impossible to prepare a cavity for the placing of any kind of filling.

In the last few months, I have had at least six of these patients to deal with in which caries was quite far advanced in the anterior upper teeth especially.—*R. S. Rose, Eston.*

REPLY FROM MANITOBA:

In treating this type of dental caries it is very desirable to have the co-operation of a pediatricist in correcting probable rickets and faulty diet. These cases are the result of general physical defects rather than dental neglect. In private practice and in the Out Patient's Department of the Children's Hospital, I have found that the best results are obtained by the repeated application of ammoniacal silver nitrate followed by oil of cloves. Two applications are made every two months till such a time as reparative work can be done. On the anterior teeth it is advisable to make a slight v slice, with a disc, between the teeth to afford better access for the application of the medicament. With the

silver nitrate and oil of cloves on pledgets of cotton and with the aid of gauze wipes, these drugs can be applied to the teeth with little difficulty.—*J. M. Grahame, Winnipeg.*

REPLY FROM ONTARIO:

This is a very difficult problem to handle and the treatment resolves itself into two phases, namely, the local and the general. The latter includes instruction to the parents concerning the diet and mouth hygiene.

A well-balanced diet for a child of three years of age would include, daily, the following:—

Milk—1 quart.

Vegetables—Two or more, at least one leafy raw, e.g., lettuce, cabbage, greens, etc.

Fruits—Two or more, one raw, e.g., orange, tomato juice.

Cereals—At least one whole grain food, e.g., rolled oats, etc.

Whole wheat bread.

Protein foods—At least one animal protein, e.g., meat, fowl, fish, cheese, and 1 egg.

Fats—Butter, cream, bacon, etc.

Codliver oil—2 teaspoonfuls a day.

Sugar and anything made with white flour should be kept to a minimum amount.

The teeth should be cleaned with the aid of a suitable tooth brush, using the correct method, twice a day—in the

morning and last thing at night. Metaphen, 1: 1,000 aqueous solution, may be used as a mouth wash in the morning and evening. This can be applied on a cotton swab.

As far as treatment by the dentist is concerned, we believe that it is possible to prepare a cavity and insert a filling provided the confidence of the child has been won. You might even resort to the use of crowns to completely cover the tooth. Although silver nitrate is difficult to apply and hard to limit to the regions desired, it will give beneficial results. One must use it with care to retain the confidence of the child. This treatment is not permanent and must be repeated at intervals.—*Arnold D. Mason, Dean, Faculty of Dentistry, University of Toronto.*

REPLY FROM ONTARIO:

With reference to your problem regarding control of caries in a child two and one-half to three years of age, would say that when I see a child with extensive caries at this age I refer the child immediately to the physician for a complete physical examination. When the physician has assured me that all possible sources of infection have been eliminated and a proper diet prescribed, I then attempt to cope with the problem locally.

In treating the problem locally the first factor that confronts us is one that has to do with Child Management, (refer to article "Dentistry for Children" February, 1938 copy of the *Journal of the Canadian Dental Association*.) Having won the child, the next step is to determine the extent of the caries by means of a radiographic examination. If there is no pulp involvement then proper

cavity preparation should be carried out and amalgam fillings inserted. If, however, there is a pulp involvement I would advise extraction of the teeth thus effected.

If the anterior teeth are effected at the age of two and one-half years then cavity preparation should be carried out and amalgam fillings inserted, (refer to cuspid preparation in article "Dentistry for Children," February copy of the *Journal of the Canadian Dental Association*.) If the anterior teeth remain free of caries until four or four and one-half years, then, I might use Howe's solution after having sliced away part of the decay with a sand paper disk.—*Stewart A MacGregor, Toronto.*

REPLY FROM NOVA SCOTIA:

Howe's ammoniacal silver nitrate solution precipitated with Kerr's eugenol will prove most satisfactory in checking the progress of caries in the teeth of young patients. It is not necessary to maintain a dry operative field for any extended length of time after the application of the medicaments. Isolation of the area with cotton rolls (No. 2.) combined with the use of tightly rolled pledgets of cotton will oftentimes completely obviate the necessity of using blasts of warm air.

In retentive shallow occlusal cavities and early approximal cavities in anterior teeth, copper amalgam can frequently be used to advantage. The bactericidal action of the copper amalgam together with its ease of insertion will be of great value in preserving the tooth structure, until such time as a more permanent filling can be inserted.—*A. Borden Haverstock, Halifax.*

The gods we worship write their names on our faces.—*Walter L. O'Donnell.*

The Forum

• INFLATION—AND WHAT TO DO ABOUT IT

By FRANK H. McCONNELL

(Reprinted by courtesy of the Editor of 'Medical Economics,' June, 1938).

INFLATION is like an elephant. As a servant, it is useful. As a master, it is five tons gone mad.

The country has been drifting inflationward for some time. A milestone was passed just recently when Mr. Roosevelt announced his \$5,000,000,000 spending program. This enterprise—one of the most ambitious undertaken by the New Deal—is intended to save us from being poor by spending money to make us rich.

Reduced to its simplest terms, inflation means artificial expansion: an artificial process of raising prices, increasing the volume of money in circulation, multiplying the government debt, and, of course, increasing the Treasury deficit.

Will such artificial expansion restore economic health?

Benjamin Franklin, in his *Poor Richard's Almanac*, would have answered "No." His doctrine was the homely one that you should cut the cloth to fit your purse.

But times have apparently changed since then.

Men who know inflation at first hand are rare. One of the best informed of them is Dr. W. S. Landis, vice-president of the American Cyanamid Company. His organization sent him during the early 1920's to Germany, Poland, Austria, and France, at the time when those countries were undergoing inflation of a revolutionary character. Dr. Landis has continued his studies since then, returning just recently from another trip through Europe.

"How can the average physician best protect his savings during an inflationary period?" I asked him a few days ago.

"There is no sure-fire hedge against inflation," he replied. "Real estate is good, of course. It is something sound and solid; something you always have. It represents a true value, regardless of price fluctuations. Commodities, such as wheat, cotton, or wool, are also good since you can always convert them into cash. The common shares of certain companies are likewise worth having. However, this calls for a warning: It is a mistake to think that during an inflation stocks rise in intrinsic *value*. Most of them actually decline in *value*, although they do not appear to because their *prices* go higher."

Dr. Landis' warning is well taken. *Price* and *value* are as distinct as the North and South Poles. Prices are determined by the quotient called money: They are high when the purchasing power of money is low, and they are low when the purchasing power of money is high. Suppose a sack of wheat now costs \$1. A month from now it may bring \$2. Clearly, the price has doubled; but the *value*—the sack of wheat—remains the same.

It was during 1922 and 1923, when the German mark took its well-known nose-dive, that Dr. Landis began his study of the conservation of capital under inflationary conditions. Some of the results of this study, which he outlined to me when I called on him, give an important clue to physicians who realize the trend toward inflation in this country and are wondering which securities to favor and which ones to avoid.

"I will show you a record of a num-

ber of the best German companies—companies with the highest rating," said Dr. Landis. "In the following table, assume 100 gold marks were invested in each common stock June 2, 1914. All rights (such as stock dividends, etc.) are taken up and added to the original investment. These stocks were valued on the same gold basis October 12, 1926, as shown in the second column of figures below." The table follows:

	<i>Total Invest- ment</i>	<i>Worth in 1926</i>
German General Electric	101.86	14.87
Heidelberg Cement	110.40	74.47
German Potash Corp.	102.15	24.10
August Wessels (shoes)	168.58	18.21
Daimler (autos)	120.03	13.72
Dueg (chemicals)	106.03	157.94
Hockst Dye Co.	118.52	154.97
Harpener Mining Co.	100.00	97.00
German Luxemburg Min- ing Co.	100.00	87.00
Rhein Brown Coal Co.	105.21	114.14
Mannesman (steel)	101.55	67.40
Griesheim (chemicals)	126.91	215.10
Hamburg American Line	100.00	40.20
German Rwy. Operating Co.	102.61	93.00
Dessau Gas Co.	125.97	85.00
Dortmund Brewery	103.81	80.00
Electric Light & Power	106.70	47.00
Kaisseroda (potash)	100.00	140.00
Ewald (potash)	100.00	114.00
Deutsche Bank	106.32	19.00
Disconto Bank	106.47	29.00
Dresdener Bank	109.51	30.00
S. German Discount Bank	104.86	26.00
Frankfurt Mortgage Bank	100.02	11.50
Prussian Central Agri- cultural Bank	100.01	11.50
Total	2,727.52	1,765.12

Although the shares of some companies in inflation-favoured industries gained appreciably, the average decline was decidedly unfavourable to the investor. Indeed, the shares above — a representative group—dropped in price after inflation to less than 65% of their original price in 1914. Generalizing on the basis of the figures given, we find that bank stocks, railroad shares, and public utility issues do not react well under inflation. Those mentioned companies which chalked up the best record were in

the chemical, dye, and coal industries.

"What type of shares, in your opinion, constitute the best insurance against inflation?" I asked Dr. Landis.

"Generally," he replied, "and with such exceptions as those already noted, I would say the common stocks of companies with large investments in real estate, manufacturing facilities, and other property. The assets of such concerns are tangible. You can put your hands on them. Hence their attractiveness during a period when currency is dissolving."

In France, where inflation was not so severe, the record of individual companies was nevertheless similar to that of German concerns. Banks, life insurance companies, public utilities for earlier portion of period, and railroads—all subject to government regulation—fared rather badly. On the other hand, companies with large property holdings — except those restricted by rate regulation or government control—did moderately well. It does not seem unreasonable, therefore, to expect a similar reaction as the trend toward inflation becomes more pronounced in the United States.

Allowances must be made, of course, for special conditions. Take, as an example, the automobile industry in Germany and France. It did not measure up nearly so well as some of the other industries. But it was then in its infancy. No doubt it would have done better had not the companies in the field been burdened with unduly heavy obligations due to natural plant expansion; they had to borrow money at high interest to build manufacturing plants, etc.

Property of almost any description was the one thing people wanted above all else. In Germany and Austria, stock-brokers bought plows while farmers bought jewelry. As long as they could get rid of their money and put it into tangible assets, they felt reasonably safe.

During the height of the 1922-1923

inflation in Germany, money cheapened so rapidly that some factories had to pay their employees twice a day. They even allowed them extra time off from work so that they could immediately exchange their money for goods and have something to show for their labour.

It is not expected, of course, that inflation will achieve such momentum in the United States. Germany, worst hit by inflation of any country in the post-war world, had lost its supply of gold when inflation came. It also lacked minerals and foodstuffs, depending upon imports to keep its factories running. The United States, by contrast, is a self-contained country with abundant supplies of gold.

"Our position," Dr. Landis said, "is almost the direct opposite of the German position. Inflation will not hurt us nearly as much as it did Germany."

Asked how far he thought inflation might go, Dr. Landis could give no answer. In fact, it is probably safe to assume that his own guess—were he willing to hazard an estimate—would put the probable degree of American inflation at one quarter to one half that experienced by France. The French franc, it will be remembered, lost about four fifths of its original value.

Judging from foreign experience, said Dr. Landis, bonds are not a good barrier against inflation. Not that holders of U. S. Government and other prime American bonds need worry unduly, he added. Because banks holding U. S. Government bonds can always turn them in for one hundred cents on a dollar; and there is every likelihood, besides, that since the administration is committed to an easy-money policy, it will stand squarely behind the government bond market, thus bolstering both government bonds and other bonds of comparable status.

The sense of Dr. Landis' comment was that holders of good bonds may well re-

tain them for the time being, but that as inflation grows nearer, such commitments had best be reduced.

"In my opinion," Dr. Landis said, "the soundest bonds to buy during an inflation are convertible or warrant bonds." These bonds may be exchanged, at the holder's option, for common shares of the company which issued them.

To the man who wants a security which ranks above the common stock yet has some of the advantages of the latter, convertible bonds offer considerable attraction. Should inflation reach the acute stage, the holder of such a bond has the advantage of being able to turn it in and take out stock in place of it.

Summarizing his discussion, Dr. Landis said that inflation will inevitably bring higher prices. Physicians' supplies and equipment are bound to go up: likewise rentals and the other costs of engaging in practice.

At the same time, of course, income will also increase. Whether the two—rising costs and increasing income—will keep pace is a moot question. It will depend entirely upon the degree of inflation that the country experiences.

"So long as the government budget is out of balance," said Dr. Landis, "inflation is with us. The only way to stop it is to balance the budget. Consequently, the government's new program which calls for spending \$5,000,000,000 can mean nothing else but added inflation."

Naturally, there is always the possibility that the government will not spend this entire sum, that its concomitant plan to relax bank credit and force banks to find outlets in the field of business for their surplus funds may cause industry to go ahead of its own accord. If it does, the slack may be self-adjusting; jobs may be created for the unemployed in sufficient volume to ease the strain on Washington.

Despite these possibilities, however,

present signs point to still more inflation in the months ahead. Investors will do well to increase their holdings of common shares, real estate, and other tangible property, meanwhile reducing their holdings of bonds.

• PUBLIC DENTAL ANNOUNCEMENTS

THE public is to-day, for want of a better term, 'news-conditioned.' It has, in fact, developed as a body, a conditional reflex to news values. It looks for, and readily responds to, what the press calls 'good copy'—something fresh to excite its interest. This is only too obvious in the way the daily press presents its information upon national and international affairs. Current matters can no longer be happenings—they must appear as news, which means they have to be presented in such a guise that the reader believes he is being told of something that has never occurred before. It was said that if a dog bites a man it is not news, but if a man bites a dog it is. That philosophy can well be applied to Public Dental Announcements. It is not news to tell the people they should visit a dentist twice a year. It is news to tell them that twenty million people never visit their dentist. It is not news to tell them that a lot of folk have decayed teeth. It is news to state that 95 per cent. of the population suffers from dental disease and that nobody in Tristan da Cunha has bad teeth. News value also lies in the number of recruits rejected from the Army on account of their dental disabilities, in the millions of weeks of labour lost due to dental disease in the industrial classes and of the money it costs to repair only a small proportion of the mouths.

These things the writer has exemplified at some length in order to emphasize that which should be the character of the new Public Dental Announcements. We

have to compete with expert advertising and journalism and we must be as clever and as subtle if we are to be as effective.

Therefore, to sum up the nature of the Public Dental Announcements: They must have news value. They must have a direct bearing upon matters dental. They must, at all times, keep the public alive to the existence of the dental profession and the part it does, and can, play in national life. They must bring dentistry into the home of the average man and show him that there is a story attached to dental affairs, as real and as urgent as that which he associates with the medical profession. In fact, Public Dental Announcements must be readable.—*Edward Samson, L.D.S.R.C.S., Eng. F.C.S. in B. D. Jour., March 15, 1938.*

• STUDY OF ASCORBIC ACID BLOOD LEVELS IN DENTAL PATIENTS

by DAVID WEISBERGER, D.M.D., M.D.,
ARTHUR P. YOUNG, D.D.S., and
FRED W. MORSE, Jr., M.D.

Harvard University Dental School, Boston, Mass.
(Conclusions of Paper in J. of D. Research,
April, 1938)

PARTIAL Vitamin C. deficiency causes some degree of periodontal disease.

Replenishment with Vitamin C. is followed by normal ascorbic blood values and clinical improvement in the tissues affected.

• A QUESTIONNAIRE

Are you—

- An attender or absenter?
- A helper, or a hoper?
- A power, or a problem?
- A promoter, or a provoker?
- A giver, or a getter?
- A booster or a boaster?
- A peace maker or a strike creator?
- A supporter, or a sponger?
- A helper or a hinderer?
- There with the goods or off with an excuse?

—From The Record, Submitted by William G. S. McLennan, Mimico, Ontario

● POSSIBILITIES AND LIMITATIONS

by TREVOR MATTHEWS, J.P., L.D.S., England

(Condensed from the Presidential Address delivered at the Annual Meeting of the Central Counties Branch of the British Dental Association, June 12, 1937.—British Dental Journal.)

OUR profession has certain definite responsibilities which may be divided thus: (1) The responsibility of the dentist to the patient. (2) The responsibility of the dentist and his profession to the medical profession (3) The responsibility of the dentist to the State.

The great work of the future lies surely in Preventive Medicine from which Preventive Dentistry is inseparable. The discoveries of to-day are often superseded very rapidly, but the terrible mass of ignorance of the majority of our population in the elementary ideas of how to live healthily is something that must be checked and checked quickly.

It is our duty to explain to all willing listeners the inestimable importance of the health of the digestive tract.

The common practice of over-eating of both proteins and starches by mature people, who aggravate matters by progressively taking less exercise, is the commonest cause of imperfect metabolism, and it is generally agreed that an abnormal digestive tract is more the result of prolonged, abnormal, fermentative processes, increased usually by the consumption of an excess of artificial sugars, than by any other cause. Four-fifths of the daily food of adults should, according to recent work, be alkali forming. Proof of these facts can be easily demonstrated by all those thousands of people who enjoy daily discomfort after nearly every meal, which they endeavour to alleviate by doses of advertised alkali.

To keep a mouth healthy does not consist in attention to the teeth and soft tissues of the mouth alone, and once we admit that, the problem is to decide where the practice of dentistry be-

gins and where it ends. It certainly does not begin and end in the creation of beautiful oral restorations. There will always be differences of opinion on the part of our leading investigators, but certain things have been demonstrated beyond further argument and it is our duty to cry them from the house tops and insist upon notice being taken. It is not a question of our overlapping the medical profession and intruding into departments that are not our business: they are our business, we cannot carry on our job properly if we do not overlap. If dentistry is to be regarded solely as a repairing profession, it is finished as a great profession, but surely, life having begun, the individual must be nourished, and the means of mastication is our department, and the state of health of the means is our department and that state of health is primarily dependent upon the food that the creature is fed upon.

More and more does one realize that no teeth are better than those that are unhealthy, and that the health of the hard and soft tissues of the mouth are inseparable. The immediate effect upon the oral soft tissues of alimentary disturbances is astonishing: do we as dentists therefore pay sufficient attention to the cause of those disturbances or do we not usually treat the resulting oral inflammations and destruction and consider the real cause as not our job?

Our work in the future must differ from that of the past. We started as a body of trained specialists with an endeavour to restore, by skilful finger work, destroyed and injured dental tissues. We have later passed through the stage of the assessment of toxæmias of oral origin, and generally come to the conclusion that the best treatment is the removal of the teeth, leaving a healthy "nothing" which can be provided for by artificial substitutes more or less satis-

factorily. Warwick James quotes the work of O'Kell and Elliott demonstrating bacteria in the blood when teeth were extracted, accounted for, of course, by their entrance through the wound, but more important is that anything causing a variation in the tension of the soft tissues can produce a similar result—that is the movement of loose teeth which produce the varying tensions necessary for this result. Does not this mean that all loose teeth are probably dangerous, however useful they may be from a masticating point of view? Frequently remarkable improvements do occur in the general health after the removal of loose teeth, not obviously infected.

Has not the time arrived when all school children should receive compulsory instruction in Hygiene, Nutrition and certain Anatomical knowledge, with, at the end of the school career, a written examination, which must be passed before that child is allowed to pass out into the world to fight for his living? Surely it is more important to him than the knowledge of the date of the Battle of Bannockburn.

The Government must be responsible for publicity upon Nutrition, Diet and Hygiene, but we, as practising dentists, who see conditions and results every day, must, through our professional Association, press for action. If half, only, of the work required is done owing to financial reasons, the waste is very considerable. It is better to keep the mouths of some children perfect than treat more children partially.

Most of our Voluntary Hospitals pos-

sess dental departments. As a profession, can we claim that the equipment of those departments is, on the whole, as modern as the other departments of the same hospital? I suggest that many of them are ill-equipped, although considerable sums are often spent on matters of much less importance. Is it possible for the work, therefore, to be carried on in accordance with the latest advances in our science? On the medical and surgical sides one has no doubts that all new treatments are duly considered, but far too often the dental department is regarded as solely for the relief of pain by the removal of teeth. This is a state of affairs that is not creditable to us, and one feels matters could, in numerous instances, be materially improved. Finance should not be considered as the obstacle.

The cost of dental education tends to rise, with the result that the incentive to enter our profession must be in proportion to that cost, if sufficient students are to come forward voluntarily. If the nation's oral health is to be satisfactorily improved, it will require a greatly increased number of dental surgeons.

May we not look forward in the reasonably near future to having all our dental schools maintained with the latest equipment, and all our dental departments of general hospitals so furnished and controlled that the importance and progress of our work may not be hindered?

Much can, and should be done, and it is through the active interest of the ordinary practising dentist that progress may be most rapidly and satisfactorily attained.

If I had to choose between exercise and a sense of humour as a panacea for long life, I should not hesitate—I should choose laughter.—Sir Charles Wilson.

● ELIMINATION OF PARODONTAL INFECTION

by E. WILFRED FISH, M.D., D.D.Sc., D.Sc.

IT IS very important that we, as physicians of the mouth, when called upon to eliminate the possibility of toxic absorption or a bacterial shower from the parodontal tissues, should do so thoroughly and completely and not merely carry out an isolated dramatic operation. It is not of much benefit to the patient to extract a useful, but dead, front tooth because there is a trace of periapical bone absorption present and yet to leave the gum margins round the back teeth ulcerated, inflamed, and liable to bleed at a touch. Incidentally, such an operation is also seriously misleading to the general physician. There is more toxic absorption, as shown by the soft tissue ulceration and bone loss round these periodontal sulci, than could possibly have been taking place from the infected apex, and the organisms are the same in each case. The patient would be much healthier and happier if the chronic inflammation around the back teeth had been cured and the front tooth left; though, of course, both areas should be treated. Perhaps apicoectomy of the front tooth would have been effective.

Similarly, it is almost impossible to find a case in which a few teeth are so badly affected by pyorrhea that they have to be extracted and yet the rest of the teeth are not in need of any treatment at all. It is almost invariably necessary to carry out a toilet of the gum margins round the remaining teeth if the patient is not to lose all possible advantage from the extractions. It may be that our failure to complete the eradication of sepsis in such cases has often misled physicians, and made them, as well as the general public, wonder whether oral infection is indeed a factor at all in general disease. Certainly we cannot expect any clear-cut

results from such mismanaged experiments.

Even if all the teeth are extracted, the operation may be associated with so much physical and mental trauma and such a flood of toxic matter and actual bacteria into the blood-stream that the patient is often irreparably damaged, whatever he may ultimately gain.

It is, however, seldom necessary to extract all the teeth. Even teeth which are slightly loose are far more useful than most dentures. Once it is realized that, if a tooth is reasonably firm and its pockets can be cut away without leaving it absurdly denuded, it is thereby made quite healthy, a very large number of teeth may be saved which are at present extracted, and the deformity and discomfort of full dentures will be avoided. Even if the patient's general health does not improve, he has gained by the treatment and is the better for having a clean mouth and most of his teeth intact. He has not lost all his teeth and gained nothing; moreover, he will be grateful, not disgruntled.

Wholesale extractions may lead to very serious disability, and it is no wonder that a physician hesitates to expose a patient to the risk of edentulous misery which may well be worse than the original disease; but he nevertheless wishes his patient to have a clean mouth if it can remain intact, and no patient, if he realized it, would willingly have a chain of suppurating sores in his mouth—more loathsome than a festering boil on the surface of his body.

Let us turn for a moment to the actual treatment of parodontal infection. The demonstration that the organisms are all lodged superficially in the pocket has allayed any misgiving about the necessity of treating, or maltreating, the underlying bone which was previously thought to be infected. It is only necessary to cut away the pockets to ensure

that the organisms shall lose the crevice in which they found sanctuary. The pernicious association of the infected sequestrum of cementum and the granulation tissue bed of the ulcer is broken up. Moreover, if we can render the epithelial covering of the gums accessible to the patient's efforts at mouth hygiene, the horny cuticle of the gum can be restored by friction right up to its attachment to the tooth. The toxic absorption will cease completely, for the poison cannot penetrate the horny cuticle, and we can give an assurance that the teeth are as void of offence as any teeth can be.

If, however, the disease is too far advanced, or through lack of co-operation, the patient or the dental surgeon fails to secure firm keratinization right up to the cement attachment, so that granulations remain, the only cure is to extract the tooth concerned. Mr. Arthur Bulleid has pointed out that a perfect control of the success, or otherwise, of the treatment is the continued presence or absence of pus cells at the neck of the tooth. With this dictum the author emphatically agrees, but would crave indulgence, for it is difficult to obtain complete success in any human endeavour, and a few pus cells can generally be found at the gum margins between the back teeth of even people with very clean mouths; so much so that somebody once described the leucocyte as a normal inhabitant of the sulcus. Such a view was, of course, misguided, but to show that we have cured pyorrhea, we must undoubtedly eliminate the possibility of there being any marked collection of pus cells at the gum margins.

Fortunately it is seldom necessary even now to extract the tooth in order to do this, and we may surely hope that, by constant effort to save every living tooth and render it healthy, our methods will become simplified and improved and the

reproach of wholesale extraction be lifted from us.—*Excerpt from Proceedings of the Royal Society of Medicine, Great Britain, July 1937.*

• MEDICAL AND HEALTH INSTITUTIONS IN THE U.S.S.R.

By E. H. CLUVER, M.A., M.D., D.P.H.,
Union Health Department, Pretoria,
South Africa.

THE medical profession throughout the U.S.S.R. has been very completely socialized. Private practice is not prohibited, but since all medical services, including the best specialist attention, are available free, it is not likely to flourish.

Every doctor is a civil servant employed by the State, as are practically all workers. Once, when I protested at what seemed to me the relatively low wage for a professional worker, my communist guide retorted indignantly that an ordinary doctor got as much as the very best coal-miner.

However, it must be borne in mind that the doctor in Russia has not had to invest money in his training. All medical students are looked upon as workers, and are paid, while studying, at approximately the same rate as industrial workers. Further, the doctor, like other State workers, need make no provision against old age or sickness; State insurance automatically provides for these. The education of his children is free. All these facts must be remembered when considering the apparently low remuneration.

It is a little difficult to assess the real value of a doctor's salary. I have mentioned above that the foreigner exchanges his money at the rate of 25 roubles for one pound sterling. This figure I shall use as an approximate guide in assessing the value of remuneration. It is, however, only a very approximate guide, as will be appreciated when I mention that ordinary men's shoes, which in South

Africa would be priced about 25 shillings, were seen in shop windows priced 250 roubles, i.e., £10. Food and clothing are definitely expensive still. On the other hand, nobody worries about being well dressed; the doctor does not need to keep up appearances.

Previously the young doctor, on qualification received a salary of 300 roubles per month, rising as his experience increased to 600 roubles. With the increased salaries the experienced doctor now receives 1,000 roubles, i.e., £40 a month. But the possibilities for a really bright man are very much greater than this. The industrial worker in Russia works a six-hour day. The doctor, who is similarly looked upon as a full-time official, also appears to have his day planned on a six-hour basis. And yet I have met doctors who held as many as four full-time appointments. Such a doctor could then receive a total of 4,000 roubles, i.e., £160 per month. This figure, it will be admitted, is not at all bad even in terms of doctors' salaries in South Africa. But it is to be doubted whether there are any doctors in Russia who receive the maximum salary of four posts, and in any case a rouble does not buy anything like 10d. worth of food or clothing—3d. would be nearer the mark. To hold four posts, he not only requires to be a very brilliant member of his profession, but he has to work really hard. He has in effect to "hold down" four full-time jobs. He is a "stakhanovite" worker with an output four times as great as the average. He ob- of his posts, but shortens his labours by viously does not spend six hours at each various devices of concentration. For each appointment he is expected to see as many patients as the corresponding doctor who holds one appointment and spends

six hours a day at his work. How far such concentration is compatible with efficiency is, of course, open to question. A dentist's wife who spoke English explained to me how her husband was able to hold three full-time posts in Odessa. He is employed at a clinic where he is paid 400 roubles, at a dental institution which pays him 300 roubles, and a dental research laboratory which pays him a further 300 roubles, a total of 1,000 roubles monthly. At the clinic he co-cainizes his patients in groups timed so that, at the last injection, the first patient has become sufficiently anaesthetized for the operation to be commenced. By such "mass" methods he is able to do his clinic work in three hours and his in-situation work in two. His wife as an "Intourist" interpreter receives a further 300 roubles monthly. Between them they received 1,300 roubles, or £56 a month. It must again be pointed out, however, that though the exchange value of the rouble is about 10d., at the ruling price of commodities in Russia it only purchases about 3d. worth.

Most of the medical work is done in institutions. The much greater efficiency of institutional practice as compared with home practice has been fully appreciated.

Doctors when qualified are remunerated at rates somewhat above the average of those for factory workers; but only Home visiting by doctors, such as we know it, has also nearly completely ceased, almost all medical work being institutionalized. Medical services, far from being the privilege of the small moneyed and aristocratic groups in Russia, are now State services available free of charge to all.—

Excerpts from South African Medical Journal, per South African Dental Journal.

"Keep thy shop and thy shop will keep thee."



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

NOVA SCOTIA



A. W. Faulkner, Halifax

NEW BRUNSWICK



J. F. Edgcombe, Saint John

Editor—M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

QUEBEC



F. W. Saunders, Mon'real

ONTARIO



T. R. Marshall, Toronto

MANITOBA



J. F. Morrison, Winnipeg

SASKATCHEWAN



F. C. Harwood, Moose Jaw

ALBERTA



John Clay, Calgary

BRITISH COLUMBIA



J. S. Bricker, Vancouver

Pacific Coast Dental Conference

The Fifth Triennial Pacific Coast Dental Conference convened in Vancouver, British Columbia, July 4-8. The eligible active members of this Conference include the ethical members of the dental profession residing on the west coast of this continent from Mexico in the south to Alaska in the north. Over 800 dentists registered at the Vancouver meeting. It is interesting to note that this Conference meets only every three years, and that this is the first time in its history that a meeting has been held on Canadian soil.

We cannot be too enthusiastic in expressing our appreciation of the exceptional executive ability of the president, Dr. W. J. Lee, of Vancouver. The writer has never seen such a galaxy of outstanding talent at any dental convention of this size. It was like trying to observe the thrills being offered at a ten ring circus to attempt to cover the various essayists and clinicians appearing on the program at any one time. However, in spite of all the intricacies of planning a program of such excellence and such magnitude, the president and his efficient officers had everything perfectly arranged. Secretary W. S. Watson had to work even while the rest of us played golf

and his many hours of sacrifice in the interests of organized dentistry, should be greatly appreciated. Our first intimation that this was to be a convention of unusual merit was the periodic distribution of the most attractive circulars, done in colour, and sent out by the Chairman of Publicity, Dr. J. S. Bricker. The following committee chairmen should also receive honourable mention: Dr. J. F. Hill, Entertainment; Dr. E. F. Allen, Exhibits; Dr. R. L. Pallen, Finance; Dr. V. D. Wescott, Hotel Reservations; Dr. D. H. Munro, Information; Dr. R. W. Hall, Local Arrangements; Dr. H. R. Grant, Membership; Dr. Wm. Miller, Reception; Dr. F. H. O'Neil, Sports; Dr. J. H. Whittaker, Transportation; and Mrs. J. F. Hill, Ladies Entertainment. Those dentists who brought their wives to Vancouver were particularly indebted to Mrs. Hill and her efficient committee for the splendid entertainment provided for the ladies. Special commendation should be made of the work of Dr. E. C. Jones and his committee of Drs. Lea and Pallen, in drawing up a new Constitution and By-Laws for the Association. There is a general feeling among Pacific Coast dentists that their organization now has a constitution second to none in existence.

The one dark spot on the horizon of an otherwise perfect meeting was the serious indisposition of the chairman of the Program Committee, Dr. W. J. Bruce. Dr. Bruce had worked most strenuously, and with his able associates, Dr. H. M. Clive and Dr. F. P. Smith, and other members of the committee was responsible for this particularly fine program, and it was a matter of deepest regret that he was laid aside and denied the privilege of witnessing the consummation of his many months of intensive effort.

The Program Committee, having in mind one of the original objects of the Conference, secured most of the essayists and clinicians from within the area of the Conference. Two outstanding exceptions were the inclusion of the late Dr. C. N. Johnson, of Chicago; who was the most beloved man of his day, in dentistry, and who addressed a general meeting of the Conference upon the subject "The Ethical Trends of the Present," and Dr. F. M. Lott, of the Faculty of Dentistry, University of Toronto, who presented the results of his extensive research on the subject of "Glass as a Denture Base." Dr. Lott gave this address and clinic a number of times and each time men were turned away because of lack of standing room.

If one were to discuss the most unusual feature of this great meeting it would be, I think, the emphasis placed on the gold foil filling. I believe it can be said, with little fear of contradiction, that nowhere in the world is done such beautiful gold foil work as in this section of our continent. The father of this movement, and the man who has given to so many the inspiration to excel in this particular field is Dr. W. I. Ferrier of Seattle, Washington. One evening of the Convention was devoted to the holding of a banquet to do honour to this distinguished confrère. One was particularly pleased, also, to see the high standard of porcelain work being done by these

men of our Pacific Coast, many of whom have studied under that famous porcelain genius, Dr. J. E. Argue, also of Seattle.

The following papers were of particular interest: "Economics" by Dr. D. W. McLean, of Los Angeles, California; "Local Anaesthesia" and "Vitamins and Hormones" by M. L. Tainter, M.D., of San Francisco; "Amalgam" by Dr. G. M. Hollenback, of Los Angeles; "Plastic and Oral Surgery" by Dr. A. E. Smith, of Los Angeles; "Public Relations" by Dr. W. A. Moline, of Spokane, Washington; "Amalgam" by Dr. W. J. Gibson, of Victoria. The motion pictures shown by Dr. A. E. Smith, of Los Angeles; Dr. O. T. Dean, of Seattle; Dr. J. T. Ryan, of Mount Vernon, Washington; Dr. R. W. Rule, of San Francisco; Dr. R. D. Fisher, of Glendale, California, and Dr. H. C. Fixott, of Portland, Oregon, were particularly fine. There were many other distinguished clinicians, there being 105 contributors on the program, but the writer was unable to attend the demonstrations of many, so is unable to comment on their work. No branch of dentistry was neglected and most phases were covered in a most excellent manner. Perhaps the weakest section was the periodontal section, which some of us regretted, since no reconstructive dental service will survive, no matter how beautifully constructed, if the periodontal tissues disintegrate.

The exhibits were of a very high order but were poorly attended simply because no time was allocated for the purpose of permitting the members to attend this display. This, of course, was also disappointing to those who believe, as the writer does, that the closest possible co-operation between the profession and the dental dealers and manufacturers should be developed.

No one could do justice to this Conference without emphasizing the beauty of its setting and the fact that those who attended had the privilege of exploring Vancouver and its surroundings. On the waterfront there were ships from every country in the world, from the Empresses of the Pacific to the rusty tramps from anywhere. During the Convention the bay was filled with racing yachts assembled for the International Regatta. The beautiful drives, the snow-capped mountains, the attractive homes with their gorgeous gardens, the natural parks and forests, the thousands of home-sites with a vista of unparalleled beauty and attractiveness, made one feel that here was a place suitable for the abode of the gods.

The next Pacific Coast Dental Conference will be held in Portland, Oregon, in 1941.

As we go to press we learn, with profound regret, of the passing of Dr. W. J. Bruce of Vancouver. The story of his achievements appears in the "In Memoriam" section of this issue of the Journal.

BOOK REVIEW

Dental Histology and Embryology, a text-book including laboratory directions, by Frederick Bogue Noyes, B.A., D.D.S., Sc.D., F.A.C.D., formerly Professor of Histology, Northwestern University Dental School. Fifth edition, revised and largely rewritten by Isaac Schour, B.S., D.D.S., M.S., Ph.D., Professor of Histology, University of Illinois, College of Dentistry, and Harold Judd Noyes, B.S., D.D.S., M.D., Clinical Assistant, Pediatric Dept., Rush Medical College, 1935; Assistant Pediatrician, Presbyterian Hospital, 1936; Research Associate, Walter G. Zoller Memorial Dental Clinic, 1937. Published 1938, by Lea and Febiger, Washington Square, Philadelphia, Pa., Octavo, 445 pages, illustrated with 284 engravings and 15 plates. Cloth, \$6.50 net.

The fifth edition of this excellent text-book has been rewritten by two outstanding teachers and research workers on this subject, and reflects the latest investigative work in this field. Special sections have been added on the histophysiology of the teeth. New chapters have been added on the growth and calcification of enamel and dentine, on the eruption of teeth, on deciduous teeth and on comparative dental histology. The addition of material on growth patterns of the teeth is of great clinical importance, especially in the practice of children's dentistry.

The practising dentist who makes any claim to developing his work along scientific lines must know the structural formation of the tissues with which he is dealing, and to such this book should prove an indispensable practical asset.

—M. H. G.

NEWS FROM THE PROVINCES

MANITOBA:

Bakelite Demonstration

The many and varied purposes for which Bakelite is used was demonstrated to about sixty of the dental profession at the Fort Garry Hotel by a representative of the Bakelite Corporation which very graciously preceded the demonstration by a complimentary dinner to those in attendance.

The representative of the corporation gave an interesting and informative talk about bakelite and illustrating his points with lantern slides. This was followed by a talking moving picture film which showed the beginning and the development of the research leading up to the present standard of the bakelite products, luxine being the one used by the dental profession.

The keen interest shown, and spontaneous applause following the termination of the film was ample evidence of the sincere appreciation by the audience of the debt the public owes to the scientists and the men of wealth and vision who make possible the use of such products as are given to the world by the Bakelite Corporation.

ONTARIO:

A Committee of the Public Dental Health Committee of the Toronto Academy of Dentistry Report the Following Comments in their Study of a Survey Published in this Journal in September, 1937.

1. The survey is an expression of public attitude to specific questions asked by a layman; a summary of their replies indicates certain trends rather than definite research data.
2. A careful review of figures in the report might indicate that the financial aspect of the summary is given more importance than the facts substantiate.
3. Rural sections reviewed and lower income classifications in Toronto (\$2,500 annual income) compare very closely in similarity of answers in many respects. There are some interesting differences:—

(a) In answer to the question—Are your children getting adequate dental care? 41% of parents in rural communities answer "Yes," 87% of parents in Toronto lower income bracket answer "Yes," and 80% of the Toronto group attribute this

situation to the public school dental service provided by the city to those unable to secure it otherwise.

(b) To the question—"Are adults receiving adequate dental care? the following trends are revealed:—

40% of adults in rural homes answer "Yes," 52% of adults in lower income Toronto homes answer "Yes."

(c) To the question—What was the deterring factor in case of those who did not get adequate service?—61% of rural homes gave "financial stringency," while 35% of low income group in Toronto gave the same reason. (Survey was conducted March 1936).

4. From a consideration of 3 above, it seems fair to observe that dental education is effective particularly when coupled with public service for children.

(a) School dental education and service for children seems to reflect itself in the dental care that adults give themselves in the community where operating—52% in Toronto (group D) and 40% in rural areas.

(b) Where school service is in operation, it might be surmised that the easing of the financial load made it possible for parents to secure more needed service. Parents provide for their children first and themselves afterwards.

5. The survey indicates convincing evidence of a lack of appreciation of a proper sense of values where dental service is concerned. For example—all groups of people are pretty unanimous in their opinion that dental health is an important factor in general health, but in answer to other questions, many people disclosed that their appreciation of this fact is not very great in view of the unimpressive reasons they give which deter them from obtaining necessary service.
6. Unmarried people employed as salesclerks, stenographers, etc., in 78% of instances, avail themselves of needed treatment.
7. In comparing the regularity of visits to the dentist when children live (a) in Toronto where a school dental service is operating and (b) in towns without a service, we find 75% attend regularly in Toronto and 49% in average size town.
8. 10% of all people are deterred from having

dental work done because of dread of dental operations.

RECOMMENDATIONS

1. Education of public regarding the effect of poor dental health on general health should be continued and extended.

2. Education as to the value of preventive dental service should be stressed among the public and dentists everywhere. The economic advantage to the patient of early care and continuous periodic treatment should be given considerable emphasis as it promotes conservation of the natural teeth and costs the patient less to maintain good dental health.

3. Dentists should be asked to assume a greater responsibility in educating their patients to a greater appreciation of the value of dental service.

4. Educational efforts concerning the value of deciduous teeth in children should be continued and extended to all sections of the public and a greater interest fostered among the members of the profession generally.

5. Facts should be submitted to the profession for their consideration as to the value of pre-school and school dental service which is provided at public expense.

6. Municipal authorities and other health agencies should be familiarized with the possibilities of dental education and dental services for children.

Kiwanis Dental Clinic

The report of the Galt Kiwanis Club's dental clinic states that 147 children were treated this year up to the end of July. The approximate cost was \$250.

Child Dies in Dental Chair

An eight-year-old girl collapsed suddenly and died in the office of a Brockville dentist on August 12. A physician administered an anaesthetic and the dentist extracted some deciduous teeth. The child had not been in good health.

Dr. "Bill" Kerr of Toronto is back in the office again after an absence of three months. Late in May he contracted an infection by a scratch on his hand from an operating instrument. The development of complications has kept him away from his practice since but his many friends will be glad to know he has made an excellent recovery.

QUEBEC:

Fourteenth Annual Fall Clinic of the Montreal Dental Club

The Montreal Dental Club plans to hold its Fourteenth Annual Fall Clinic at the Mount Royal Hotel, October 12-14. Dr. Ralph C. Cooley, of Houston, Texas, will speak on "Porcelain Veneers and Porcelain Pontics." Dr. John B. LaDue, of Chicago, Illinois, will discuss "Full and Immediate Denture Service." Dr. Ralph F. Somner, of Ann Arbor, Michigan, has chosen as his subject "The Conservation of Pulp Involved Teeth as a Dental and Health Service." Dr. C. H. M. Williams, of Toronto, Ontario, will speak on "Periodontia for the General Practitioner." Dr. Gustav C. Tassman, of Philadelphia, Pa., will discuss the problem of "Children's Dentistry." Dr. LeRoy M. Ennis, of Philadelphia, Pa., will speak on the subject of "X-Ray Diagnosis."

There has been arranged also a very interesting series of table clinics by visiting dentists from Toronto, Ottawa, Halifax, Burlington, Plattsburg, Saranac Lake, etc.

Practical courses will be conducted by Drs. Cooley, LaDue and Williams from 4 to 6 p.m., on October 12, 13 and 14. Membership in each course will be strictly limited to 25.

The resident membership fee will be \$10.00 and the non-resident fee, \$5.00, which includes two luncheons.

For further information apply to Dr. F. A. Edward, Medical Arts Building, Montreal, Quebec.

NEW BRUNSWICK:

Annual Meeting of N.B. Dental Society

The Annual Meeting of the New Brunswick Dental Society was held in Fredericton, July 4. The following important resolutions were adopted:—

1. That the New Brunswick grant to the Canadian Dental Association be increased from 50 cents to \$1.00 per member.
2. That the Journal of the Canadian Dental Association be made the official organ of the New Brunswick Society.

BRITISH COLUMBIA:

University of Toronto Alumni Dinner

The graduates of the University of Toronto, during the Pacific Coast Dental Conference,

held an Alumni Dinner, for the first time. Dr. George Darts was master of ceremonies. Dr. Darts introduced the guest speaker, the late Dr. C. N. Johnson, who was graduated from Toronto in 1881, the last of the pioneers. Dr. Johnson related some of the early history of The Royal College, and spoke especially of Dean J. B. Willmott. His story and message will long be remembered. He was such a fine, old gentleman, with a brilliant outlook on life, and was and always will be, an inspiration to those who knew him either personally or through his writings. Dr. Emory C. Jones, New Westminster, proposed the toast to "Our College" which was responded to by Dr. Frank Lott, Toronto University. Dr. Lott presented the modern history of the college, and his vivid description of changes which have taken place for the advancement of dentistry, made us all feel proud of our Alma Mater. Dr. Stephen Moore, London, Ontario, proposed a toast to The Conference. Dr. Moore, the new president of the Canadian Dental Association, created a favorable impression and will have the support of his colleagues in the west. Dr. W. J. Lea, Vancouver, president of the Pacific Coast Conference, responded. Dr. Lea performed his duties as president, throughout the entire session, with dignity and in the most capable manner, and we are very proud of him. The meeting of old classmates and fellow graduates made this one of the enjoyable meetings of the conference.

School Dental Clinics

The Provincial Department of Health, under the direction of Doctor H. E. Young, Provincial Health Officer for some years past, has been desirous of having the mouths of the children attending schools in rural districts taken care of. Very often it is difficult to acquire the services of a dentist, and also, perhaps, the parents of the children are not in a position financially to pay the usual fee required for such attention. For these reasons he has co-operated very generously with the Women's Institute, or Parent Teachers Association, in such districts, where they have made the necessary arrangements to have a dental clinic established.

It is necessary, of course, that the initia-

tive be taken by the local organization, by procuring permission from the parents to have this service performed, and agree to pay the small amount required for each child. Having done this, it appeals to the Department of Health for assistance and guidance, which has always been graciously given, and it is asked to suggest the name of a dentist who is willing and in a position to carry out this work under the conditions required. This means that it must be done in some building in the district, such as the school, hall or private house, and the dentist supplies all the equipment. A suitable lady assistant is secured who acts as nurse, and the result is usually satisfactory.

Dental record cards are filled out for each child, and are filed with records at the school.

During the past few years thousands of children in the schools of British Columbia have received this health service, which covers prophylaxis, extractions and plastic fillings. This is done as a matter of education, to show the parents that their children can and may receive such attention at a nominal cost to them, and to encourage the undertaking of this work in succeeding years, without the assistance of the Department of Health. Some of the districts are already doing this. If the service is rendered yearly, each child has very little to be done, which can be covered by a very small outlay per child, and after all it is a wonderful assurance for the better health, both physically and mentally, of our young and growing generation.

There is an increasing demand for this service, usually in districts adjoining or adjacent to a municipality that has held a clinic, which goes to show that after all, it is simply a matter of education. Unfortunately all children in the schools are not included in the clinic, for the reason that as yet some parents will not co-operate to the extent of paying the small fee required for the child, and, of course, there are also other reasons.

The percentage of those in the school, who attend the clinic is, however, quite good in most instances, and ranges anywhere from fifty to one hundred per cent of those on the register, and as time goes on the percentage

of children receiving this attention in the schools will increase.—*Fred T. Coghlan.*

ALBERTA:

Dr. Lott Visits Alberta

Dr. Frank Lott, Professor of Prosthetic Dentistry of the Dental Department of the University of Toronto, stopped off at Calgary and Lethbridge, on his way home from the Pacific Coast Dental Congress, to speak before the two local dental societies. His talk on "Glass as a Denture Base," was of leading interest at Vancouver, and his kindness in giving these addresses at some personal inconvenience was much appreciated.

Calgary Dental Society

At a special meeting of the Calgary Dental Society held at the Renfrew Club on July 27 last, Dr. Charles Freeman, Dean of the Department of Dentistry, Northwestern University, was the guest speaker.

Dr. Freeman talked on the research work on local anaesthetics, which has been carried on extensively at Northwestern. This was followed by a lengthy and informative round table discussion of the whole field of local anaesthesia.

A committee headed by Dr. Henry Freeland has been carrying on clinical experimental work with various anaesthetics, the report of which made this address of particular interest.

Interesting Experience

Trouble can bob up so unexpectedly. The other day while the sun shone and all was peace, it descended on me.

I was selecting shades for full dentures, for a smart lady patient. After looking at her general colouring a moment, I said to my nurse, "What do you think?"

"About forty-two," said she.

"No, I should say fifty-two would be nearer."

At this my patient's eye flashed and with some heat she said, "Doctor, I'll have you know I'm a lot nearer forty-two than fifty-two."

Will the Dentist's Supply Company please change the numbers on the new Trubyte Shade Guide?

Dr. Gilchrist Returns From the South

Dr. H. A. Gilchrist of the University of Alberta Dental Department, has recently returned from New Orleans where he has taken a week's course on the Fuller-Fournier technique for lower dentures. It is planned that he will give clinics on this method of denture construction at several of the larger centres in the province in the near future.

Dr. Ahrens Leaves For the Orient

Dr. A. C. Ahrens, of Lethbridge, left August 1 for Hong Kong, China, where he will be associated with Dr. J. S. Pyne for at least a year.

SASKATCHEWAN:

Visitors to Pacific Coast

Dr. George L. Cameron, Swift Current, Dr. P. W. Winthrope, Saskatoon, Dr. W. W. Irwin and Dr. Harold Johnston, Moose Jaw, were among the Saskatchewan dentists who

attended the Pacific Coast Dental Convention in Vancouver, July 4-8, and report a very splendid convention.

Dr. Cameron attended the meeting of the House of Delegates of the Canadian Dental Association held immediately preceding the Convention, as representative of Saskatchewan.

Congratulations to Dr. Lowie

Friends of Dr. Alexander Lowie of Moose Jaw, formerly of Weyburn, will be interested to learn of his recent marriage, which took place in St. John's Anglican Church, Moose Jaw. The bride was formerly Miss Margaret Engles of Winona, Minn., and until her marriage was on the staff of the Minneapolis General Hospital. The groom is a 1935 graduate of the Dental Faculty of the University of Minnesota and served for a year as dental intern in the Minneapolis General Hospital, previous to settling in Moose Jaw, where he is associated in practice with Dr. Harold Johnston.

EMPIRE NEWS

GREAT BRITAIN:

Warning by Sir H. Hetherington

"Undue rigidity is always a danger when professions become highly organized and control their own standards of admission," said Sir Hector Hetherington, Principal of Glasgow University, in the course of an address yesterday to students of the Glasgow Dental Hospital and School at the prize-giving ceremony.

Sir Hector Hetherington said that professions had three quite distinctive characteristics. Required first of all were a body of knowledge and a degree of skill, necessitating a long period of apprenticeship and preparation.

Secondly, a profession was marked by, and rejoiced in, a very considerable degree of self-government, creating a code of ethics and prescribing the conditions under which recruits could be admitted.

Thirdly, the fundamental requirement of all good professions was that they be run in the public interest. The value of entrusting to professional societies the measure of self-government which they enjoyed was that by so doing the public interest was well served.

He was certain that the professions would continue to enjoy the degree of autonomy they had acquired only so long as they remained faithful to the implied, implicit, and sometimes explicit obligation—that their first interest be their service of the public.

But there was always the danger when professions became highly organized, and controlled their own standards of admission, that they might to some extent ossify and become rigid.

There were two safeguards against the undue rigidity of any profession.

It should be brought in contact with the wider body of public opinion; and the minds of the members of the profession, especially the younger members, should be themselves alive, bringing their own interests into line with the activities of society as a whole.—*Glasgow Herald*, July 1, 1938.

B.M.A.'S National Health Insurance Scheme

The British Medical Association has published details of its scheme to extend the medical service provided under National

Health Insurance to an extra 18,000,000 or 28,000,000 people. Every member of every family within an income limit of £250 a year would be included in the scheme. Full dental benefit is one of the services which would be provided.—*Dental Magazine and Oral Topics*, June, 1938.

AUSTRALIA:

Master of Dental Surgery Degree

Candidates for the degree of M.D.S. shall (a) have obtained the degree of Bachelor of Dental Surgery in the University of Sydney; (b) have obtained the degree with first or second class honours, or have, not less than one year after obtaining the degree and not less than one year before submitting a thesis or passing an advanced examination; (c) submit a thesis embodying the results of original

work or pass an advanced examination in such one of the following groups as he may select: operative dentistry, prosthetic dentistry, oral surgery, periodontia, orthodontia, or any other special section of dentistry that the Faculty may determine as being of sufficient importance to warrant its inclusion in this paragraph.

The degree of M.D.S. shall not be conferred until after the expiration of two academic years from the granting of the pass degree of B.D.S. or one year from the granting of the honours degree of B.D.S.

In addition to the thesis, examiners may prescribe an examination which may be conducted orally or by papers on a branch or branches of dental science closely related to the work of the thesis.—*The Dental Journal of Australia*, June, 1938.

GENERAL NEWS

Walter G. Zoller Memorial Dental Clinic

The establishment of the Walter G. Zoller Memorial Dental Clinic was made possible through the generosity of the late Walter G. Zoller who left his residuary estate of \$2,900,000 to the University of Chicago for the study and treatment of dental disease of the indigent. The clinic is located in the Albert Merritt Billings Hospital and affords the assurance of ample opportunity to study oral diseases thoroughly.

The reasons for selecting the University of Chicago as the medium through which adequate dental service can be made available to the poor, and intelligent research carried on, are as follows:—

- A. The dental service would be performed at the University for patients whose health would not otherwise be investigated carefully.
- B. Under the permanent and efficient administration of the University the money would do the most good to the largest number of poor people.
- C. He would increase the usefulness of his money by obtaining the dental service itself for the poor, and at the same time dental and medical students would be using the clinical service as a basis for investigative study.

The motivating factors of the Institute are:—

- A. Provide free dental service of the best possible quality for the indigent patient.
- B. Offer an opportunity for advanced study in the biological sciences and clinical procedures for the recent dental graduate.
- C. Promote research with the dental motivation in the various departments of biological sciences.

Appointments will be made from time to time to the positions of internes, fellows, assistants, instructors, etc., on a full time basis. Preference will be given to recent graduates of high standing who have served internships or who have been on the teaching staff of a dental institution. They must be eligible for entrance into the Graduate School of the University in order to carry on advanced work in whatever department of biological science attracts their interest. A fellow is required to spend about fifty per cent of his time in the Clinic and may devote the remainder of his time as he wishes to the study of special cases and original research. He is also offered a liberal stipend and free tuition for courses in the biological division.

Internes are appointed for a period of one year during which time the interne is given full maintenance in the hospital. They re-



Zoller Memorial Dental Clinic.

ceive experience in all phases of dentistry and minor oral surgery and are privileged to attend all departmental seminars and conferences conducted by the Departments of Medicine and Pathology, etc.

In the Clinical Department, which was established in 1936, patients are accepted for complete dental care, limited to the indigent, who are of interest in the accepted plan of research duty. Every patient receives a complete physical examination in order that the medico-dental relationship may be studied. A thorough social study is also made of each patient accepted for treatment in an effort to secure an accurate statement concerning the past and present conditions of the home.

In the Oral Pathology Department a laboratory is established in order to improve ability in the diagnosis of clinical conditions found in the teeth and jaws of Zoller patients and also to provide ample teaching material for the junior members of our staff.

In the Bacteriology, Anatomy and Biochemistry Sections men who are eminently qualified in their particular field have been chosen to take charge of each respective department. The director of the dental clinic furnishes the motivation for their research investigation.

With this set-up and with these ideals as the premise, the purpose of the Zoller Foundation, briefly stated, is to offer the best possible dental service to the indigent, to provide an opportunity for advanced training to the recent dental graduate, to improve therapeutic methods for the treatment and control of dental disease, and, finally, to come to a better understanding of the relation which exists between the mouth lesions and systemic disease.

The editor is indebted to Dr. J. R. Blaney, Director of the Zoller Dental Clinic, for the information contained in the above article.

Report on the National Health Conference

Called by the President's Inter-Departmental Committee to Co-ordinate Health and Welfare Activities.

Washington, D.C., July 18-20, 1938.

On July 18-20, at the suggestion of President Roosevelt, over 300 leaders in the field of medicine, labour, farm, social work and civic affairs, met in Washington, D.C., to discuss the needs of the people for preventive and curative service in illness, and for reduction of the economic burdens and other studies. The three-day meeting was packed with emotional appeal from labour, farm and social leaders and with statistical data from government officials regarding the needs of health care for the people.

Miss Josephine Roche, chairman of the Committee, read a letter from President Roosevelt, in which the President said in part:—"It is clear that there is need for a co-ordinated national program of action. Such a program necessarily must take account of the fact that millions of citizens lack the individual means to pay for adequate medical care. The economic loss due to sickness is a very serious matter not only for many families with and without incomes, but for the nation as a whole.

"We cannot do all at once everything that we should do. But we can advance more surely if we have before us a comprehensive, long-range program, providing for the most efficient co-operation of federal, state, and local governments, voluntary agencies, professional groups, mediums of public information, and individual citizens. I hope that at the National Health Conference a chart for continuing concerted action will begin to take form." Miss Roche further added the following: "The people of our land are alert and determined that the frequently difficult but ultimately sure and progressive processes of democracy shall serve all the people. We have established the principle that certain insecurities which individuals alone are powerless to withstand must be met through public action that human conservation is an obligation of government.

The gross sickness and mortality rates for the poor of our large cities are as high today as they were for the nation as a whole a half a century ago. Among families on relief

canvassed in the National Health Survey, acute illness is 47 per cent more prevalent and chronic illness 87 per cent more prevalent than among families with income of \$3,000 or over. No physicians' care is received in 30 per cent of serious disabling illnesses among relief families and in 28 per cent of such illnesses in families just above the relief level.

Fifty million Americans are in families receiving less than \$1,000 income a year; illness and death increase their toll as income goes down; medical care decreases sharply as need for it mounts.

This staggering aggregate of suffering and death can and must be lightened. But putting aside for the moment the human aspect of the problem, let us look straight at the economic waste to the nation of these unmet health needs.

On an average day of the year, four million or more persons in the United States are disabled by illness. Every year 70 million sick persons lose more than one billion days from work. The total cost of illness and premature death in this country is approximately ten billion dollars a year. This estimate includes only those factors which can be expressed in dollar values—the cost of health services and medical care, the loss of wages through unemployment resulting from disability, and the loss of potential future earnings through death.

We cannot attack successfully with small change a ten million dollar problem. To carry forward a long-time program of health services and medical care commensurate with need will cost the government millions, but save the nation billions. It must be a program which not only safeguards but advances the quality of medical care. Our technical committee estimates that the total annual cost to federal, state, and local governments of a reasonably adequate program for the expansion of public health services, maternal and child health services, hospital and clinical facilities, and for medical care for the lowest income groups would reach up to \$850,000,000 a year. This is a gauge of the need. This is approximately what we must spend if the need is to be met. And every dollar spent on a soundly-planned and well-executed program will yield a national saving many times over in future years—a saving in human values and a saving in actual cash.

The gigantic health program recommended by the Technical Committee on medical care is as follows:—

1. Expansion of general public health services, including intensified battling of tuberculosis, venereal disease and malaria, pneumonia, cancer, mental and industrial diseases; with a peak annual cost of \$200,000,000.

2. Expansion of maternal and child health services; peak annual cost, \$165,000,000.

3. A 10-year expansion of the nation's hospital facilities by providing 360,000 additional beds, and by construction of 500 health and diagnostic centres in areas inaccessible to hospitals; total average annual expenditure, \$146,050,000.

4. Free medical service, hospitalization and *emergency dentistry* for the medically needy, who are self-supporting but unable to finance their own medical care; estimated cost, \$10 per year for each individual; total expenditure, \$50,000,000 the first year, gradually expanded to \$400,000,000.

5. A comprehensive insurance program designed to increase and improve medical services for the entire population, with recommended financing by taxation, insurance contributions or both.

6. Temporary and permanent disability insurance, to assure workers continued income through period of illness.

A suggested program as presented at the Conference would cost the federal, state and local governments about \$850,000,000 a year, half to be paid out of federal funds.

Dr. Camalier, president of the American Dental Association, spoke as follows: "The members of the dental profession realize that they are confronted with a very serious public health problem. Dental defects are the most prevalent of all diseases with the possible exception of the common cold. I feel forced to speak on this subject at this time because an examination of the report and recommendation of the Technical Committee on medical care makes but slight mention of this serious but common condition.

A survey of 1,500,000 school children made in 1933-35 by members of the dental profession in co-operation with the United States Public Health Service, in which 4,800 dentists in 26 states contributed over \$2,000,000 in time and service, disclosed that approximately

90 per cent of American children of school age suffer from dental decay. Studies on a smaller and more detailed scale, made subsequent to this large survey, confirmed these findings.

Until further dental research demonstrates some method whereby we can prevent dental disease, the objective of the dental profession is to control it in its incipency. It is universally recognized by those who have studied the problem that the general health is often adversely affected by dental disease.

The American Dental Association has given serious consideration to this phase of the public health problem and believes that the logical approach is through adequate prenatal and post-natal nutrition and medical care, plus the detection and correction of dental defects early in childhood. This must be brought about largely through education. It has been demonstrated that if adequate dental service is provided the pre-school child, the occurrence of complicated dental diseases will be materially reduced. If this type of program is followed, the ultimate cost to the community for proper dental service will be greatly minimized.

The American Dental Association during the past two years has laid tremendous emphasis upon dental health for the child.

The following important measures have been accomplished:

- (a) State and component dental societies have intensified their preventative dental programs.

- (b) The Association has furnished the leadership in having divisions or bureaus of dental health established in State Boards of Health, tripling the number in three years. To date, thirty-four states have such divisions.

- (c) State and component dental societies have been stimulated to co-operate with the National Congress of Parents and Teachers in their summer round-up campaigns.

- (d) Realizing that the technique of handling and performing dental operations for children is intricate and of a highly specialized nature, the Association has accelerated the conduct of refresher courses in children's dentistry.

- (e) Under American Dental Association leadership, courses in dental health education are increasing in teachers' and nurses training schools.

- (f) The Association has requested our State

and component societies to inaugurate dental health programs in all child-interested groups, such as the Parent-Teachers Association, Boy Scouts, Girl Scouts, Camp Fire Girls, 4-H Clubs, American Red Cross and others. This is now being done.

(g) The Association through its Bureau of Public Relations has developed and distributed large quantities of dental health educational material to the public through schools, boards of education, boards of health and other channels. And incidentally, some of you know that we established a national dental poster contest to bring preventive measures to the people of the United States. About a million posters have been submitted, and we have made in the neighborhood of two million contacts.

(h) The Association through its Research Commission is now making an intensive study of all dental literature pertaining to the problem of dental caries, in an effort to facilitate the discovery of the aetiology of the disease. It is hoped that the United States Public Health Service will, in the very near future, initiate studies on the problem of dental caries. To further stimulate this activity, it is the desire of the American Dental Association to establish a fellowship on dental caries in the National Institute of Health.

(i) The dental profession realizes that some provision must be made to provide emergency service such as the relief of pain and the elimination of infection at community expense for those adults of the present generation who cannot provide this service for themselves.

As previously stated, however, *the dental profession believes that the long term preventive program for children is the only feasible and practical program for the control of dental disease.*

Thomas Parran, Surgeon General U.S. Public Health Service, said:—

"It is not unlikely that public health may be the next great social issue in this country."

Mrs. Dorothy J. Billanca, Vice-President Amalgamated Clothing Workers of America, said:—

"The need of medical care falls unexpectedly with terrific force upon those who can least bear it. The need, inadequate, unmet, un-

predictable is beyond fulfilment by the low-income groups who most need it."

Mrs. H. W. Short, President Associated Women of the American Farm Bureau Federation, said:—

"We are 60 years behind Europe in providing health insurance to the people of the United States."

Lee Pressman, Council for the C.I.O., said:—

"It is our feeling on the part of labour that no program for adequate health facilities can possibly be administered unless it is administered through a federal agency."

Morris Fishbein, Editor Journal of the American Medical Association, said:—

"After sitting in this conference for two days and two nights I have gradually become more bewildered and more amazed at the manner of approach to this problem and at the peculiar, perhaps, arrangements that have been made in order to get from the people of the United States an expression of its opinion in regard to a far-reaching, economy-shaking, tremendous national program.

"It is inconceivable that any nation like the United States can look forward to a future in which there will always be eleven million workers unemployed, and yet the health program planned here is a program planned on the basis of such conditions. It is inconceivable that any nation which is forward-looking can plan a program in the light of one-third of the people poorly clad, badly-housed and undernourished and plan for a future in which there will continue to be one-third of the people poorly clad, poorly housed and insufficiently nourished. I maintain . . . that medical care is not the most important problem before the people of the United States today . . . The fundamental needs of mankind are food, fuel, clothing, shelter, and a job, and medical care and dental care must always be subservient to those main human needs. Let us concern ourselves first with that question of food, fuel, clothing, shelter and a job with adequate wages. . . .

"I am not going to attack government medicine because since the United States Public Health Service was founded the physicians of this country, as represented by the American Medical Association, have given of their utmost to co-operate with them in every

plan for the prevention of disease that has been developed.

"We are willing to co-operate with sound, sane, scientific medical leadership. I have no authority to say here what the American Medical Association will do with this program. The logical order will be for those of us who are here—there are about ten representatives from the House of Delegates, the representative body of the American Medical Association. We will ask them to consider and advise us as to what the attitude of the American Medical Profession should be toward this program."

Joseph A. Padway, General Counsel, American Federation of Labour, said:—

"We believe there should be a compulsory plan which will afford to every human being needing it within certain classifications, medical attention, wage compensation and the other elements that have been discussed here. . . . The plan should be placed within the Social Security Board. . . . I am talking for millions of people who are affiliated with the organized labour movement of America."—*A.D.A. News Release*.

Dentists Attention

While the discussion on the government health project looms as the most important single problem to come up at St. Louis, the five-day convention program, Oct. 24-28, is literally packed with events of vital interest.

Three general meetings will be held—on Monday, Tuesday and Thursday evenings. At the Thursday meeting, a symposium will be held on the past, present and future of preventive dentistry.

Throughout the sessions, every phase of dentistry will be covered in section meetings. Section officers have promised outstanding presentations in operative dentistry, materia medica and therapeutics; full denture prosthesis; partial denture prosthesis; oral surgery, exodontia and anaesthesia; orthodontia; periodontia; children's dentistry and oral hygiene and histology, physiology, pathology, bacteriology and chemistry.

In addition, over 400 table clinics covering all phases of dentistry will be given on Thursday afternoon, Friday morning and Friday afternoon.

The Scientific and Health Exhibit alone

would be worth the trip to St. Louis from any part of the country. More than 30,000 square feet in the magnificent St. Louis Municipal Auditorium will be occupied by 125 exhibits depicting the March of Progress in Dentistry.

"Youth Lane" will hold a prominent position in the hall of exhibits. Here more than 5,000 dental health posters—winners in the state and component society finals of the national contest—will be displayed.

Commercial exhibits at St. Louis appear to be the largest and most pretentious array in the history of the Association. Firms in the dental and allied fields will display a complete line of products and services.

Professor Gottlieb's Classes

Owing to the new conditions in Austria, Professor Gottlieb of Vienna is holding his post-graduate classes in Palestine this year. The courses dealing with various departments of dentistry will be conducted in English and afterwards in German.—*South African Dental Journal*.

Welfare Club of Chicago Dental Society

The Board of Directors of the Chicago Dental Society has authorized the formation of a welfare club to provide a cash payment to a beneficiary upon the death of a member. The plan is made operative through the voluntary enrolment of members interested in obtaining such benefits.—*Bul. of Chi. D. Soc., August 4*.

Prepare Series on Dental Care

At the request of Edward J. Meeman, editor of the Memphis (Tenn.) Press-Scimitar, a series of twelve newspaper articles on mouth hygiene have been written by Jane Stafford, a special writer on medical and dental subjects for Science Service, a nationally known press service specializing in news bearing on scientific matters.

The twelve articles cover, in order: reasons for clean teeth; a discussion of the value of tooth pastes, powders, and mouth washes; need of expectant mothers for proper dental care; care of baby's teeth (two articles); need for early correction of "buck teeth" and other irregularities; cause and prevention of caries; pyorrhea; trench mouth; accidental breakage or cracking of teeth and jaws; diet; and a

discussion of the development of teeth in the normal mouth.

The articles are designed to comply with the ideas of local dental societies and have already been released to client papers of which there may be one in your city.

In each article, the attempt has been made to give proper consideration both to the part the patient plays in taking correct care of his teeth and to the importance of consulting with and depending upon the dentist for guidance and professional care in the prevention of disease and correction of disorders.

Information submitted by Earle U. Scharff, D.D.S., Memphis, Tenn.

A.D.A. News Release Service.

Elementary Economics and Dental Salaries

Controller Joseph D. McGoldrick of New York City recently made public a list of mini-

mum wage scales that contractors must pay labour on work done for the city. Among the minimum hourly rates are the following: Electrician \$2.00; Engineer \$1.75 to \$2.20; Plumber \$2.00; Boilermaker's helper \$1.60 to \$1.90; Glazier \$1.88; Machinists \$1.75; Stone Carvers \$2.21 and concrete paving mixer \$1.92½. Dentists employed by the Department of Health in New York City who, in addition to being regularly licensed by the State Board of Dental Examiners must also pass a civil service examination, receive \$1.35 per hour. It has been estimated that six per cent interest on the investment involved in educating and qualifying a person for the practice of dentistry amounts to \$40.00 per week or one dollar per hour for a forty hour week. On this basis the dentist is receiving a net of 35 cents per hour or 5 cents less than the proposed Federal minimum wage scale law.—*N. Y. Jour. of D., June, 1938.*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

William James Bruce, of Vancouver, British Columbia, died at St. Paul's Hospital, August 2.

Dr. Bruce was born in Bruce County, Ontario, where he received his early education. After teaching for a short time he entered the Royal College of Dental Surgeons, Toronto, graduating March 30, 1895. During his college term he was indentured with his uncle, Dr. William Bruce, Lis-towel, father of Dr. Ernie Bruce, Kincardine. Upon graduating Dr. Bruce began practice in Kincardine. He was on the Board of the Royal College of Dental Surgeons, for several years, as representative for that district.

Leaving Ontario, Dr. Bruce resided in California for several years, but the call of dentistry was too strong for him, and he began practice again in Vancouver, B.C., August 1918, specializing in periodontia. He was a member of the Council of the College of Dental Surgeons of British Columbia for eight years, and held the office

of president during seven of these. In 1928 he moved to Seattle, Washington, later returning to British Columbia to practise in Victoria, and later in Vancouver.

Dr. Bruce was a man of outstanding executive and technical ability. He was the British Columbia delegate to the Pacific Coast Dental Conference, and was instrumental in its formation. He was chairman of the program committee at the last meeting, and was responsible for the arrangements and details. His faithfulness to his office so lowered his resistance that he was unable to see the fulfilment of his efforts, but before he passed on he had the satisfaction of knowing that it was a meeting of achievement and merit. His last contribution to dentistry was well done. He took an active part in the British Columbia Dental Association and Vancouver Dental Society, and while in Ontario was active in the Ontario Dental Association. He was a member of the Vancouver Auxiliary Chap-

ter of Delta Sigma Delta and received his 32nd Masonic Degree in 1920. He was a keen fisherman and huntsman, and had for his hobby the cultivation of flowers. The remains were cremated.

•

W. H. McPhee, of Omeme, Ontario, aged 43, died July 31, as the result of a motor accident three days previous. He was one of the first in Orillia to enlist to go overseas in 1914. He graduated from the R.C.D.S. in 1926 whereupon he set up practice in Omeme. He was given a Masonic funeral at which local military units were present. His father was the late Dr. S. D. McPhee of Orillia.

Dr. McPhee is survived by his widow, a son aged 9, and a daughter aged 3.

•

Albert C. Pye, of Toronto, Ontario, aged 53, died July 29, following a lingering illness. He graduated from the R.C.D.S. and also the Chicago Dental College. He belonged to the Masonic Order.

Dr. Pye is survived by his widow, a son and a sister.

•

Wilbur Harvey Coon, Toronto, Ontario, aged 55, died at his home July 31. He graduated from the College of Dentistry of the Royal College of Dental Surgeons of Ontario in 1909. He began practice of his profession in Midland, Ontario, moving to Toronto in 1915. He was on the staff of the College of Dentistry in Toronto in the Department of Prosthodontia from 1915-1920.

Dr. Coon was born and educated at Smithville, Ontario. He taught school for two years before entering Dentistry.

He was a Scottish Rite Mason, a member of Yorkminster Baptist Church and a member of the Toronto Academy of Dentistry.

Dr. Coon is survived by his widow and one son, Frederick.

•

Frank G. Moody, of Victoria, British Columbia, aged 67, died July 25. He practised

his profession in Victoria for 42 years.

Dr. Moody is survived by his widow, two daughters and a brother.

•

K. M. Madigan, of Sydney, Australia, aged 28, died in June, while undergoing an operation. He was a graduate of the University of Alberta, Canada.

Dr. Madigan is survived by his widow, who is also a registered dental practitioner, and two small sons.

•

Jacob Edward Johnston, of Hamilton, Ontario, aged 55, died suddenly July 31, from an embolism.

Dr. Johnston was a graduate of the Royal College of Dental Surgeons and practised his profession successfully in Hamilton for many years.

•

Archibald N. Jenks, of Montreal, Quebec, aged 50, was found shot through the temple and abdomen, at his Saraquay estate, on July 30. He was a graduate of McGill University and had practised in Montreal more than 15 years.

•

Arthur Firstbrook, of Acton, Ontario, aged 44, died August 7, as the result of falling from a truck. He served for three years overseas with the 55th battery. Following his discharge he was graduated from the R.C.D.S. and for eight years practised his profession in Toronto. Failing health forced him to retire and he returned to his boyhood home to reside.

•

Frederick Keyes, of Boston, Mass., died in August. Dr. Keyes was editor of "The Apollonian" organ of the Catholic society, the Guild of St. Apollonia.

This dental magazine was published quarterly under Catholic auspices and always fought for a finer appreciation by dentists of the dignity of their calling.

Dentistry has sustained a real loss in the passing of this gifted editor.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milor, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Editorial

Nos lecteurs n'ont certainement pas reçu le dernier numéro de notre Journal sans remarquer l'absurdité de sa composition. En effet pas un des articles imprimés n'était à date et même nous ignorons complètement la provenance de l'article signé du Dr Roy.

Tout ceci est probablement dû au fait que notre Journal est imprimé à Toronto et que le rédacteur en chef de la section française, lui-même à cent milles de Montréal s'est trouvé privé de l'aide dont il s'était assuré par mesure de précaution.

Dès le mois de juin il avait été décidé qu'un rapport aussi détaillé que possible de notre dernier congrès serait publié au mois d'août. Aussi la direction s'était-elle assurée de la préparation de ce rapport pour le 15 juillet. On s'était engagé formellement, et à plusieurs reprises, à nous fournir les copies voulues pour cette date. Or il advint que malgré des promesses auxquelles on pouvait se fier; au 15 août nous n'avions pas reçu de rapport et surtout on avait complètement oublié de nous avertir qu'il en serait ainsi. Du 15 juillet au 15 août, tous les jours à la poste, nous avons attendu ce courrier qui n'arrivait jamais. Ce sera sûrement demain disions-nous. Si, bien qu'à la veille de revenir à Montréal, je reçus de Toronto un paquet de vieux textes imprimés pêle-mêle avec une lettre me demandant d'en faire la mise en pages. Impossible de faire quoique ce soit avec ce galimatias et comme je devais revenir en ville presque tout de suite, je remis ma réponse au lendemain n'y voyant d'autre inconvénient qu'un retard dans la livraison. Mais . . . les imprimeurs pensèrent autrement et j'eus en arrivant chez moi la surprise de trouver le chef-d'oeuvre que vous connaissez.

Ne pouvant pleurer j'ai fait comme la plupart des confrères . . . j'ai ri.

Me serait-il permis de profiter de l'incident pour rappeler que ce Journal n'est pas l'affaire d'un seul homme, que l'on devrait y voir d'autres signatures, que tous les collaborateurs sont les bienvenus. Enfin, plus il y aura de matière à publier plus la tâche du rédacteur sera légère et moins il y aura de retards.

ALCIDE THIBAUDEAU.

Lisons-Nous Suffisamment?

On entend souvent les membres de la profession dentaire se plaindre qu'il n'existe pas de littérature dentaire suffisante pour intéresser les dentistes, surtout en français: et un grand nombre prennent cela comme prétexte pour s'abstenir de lire. D'autres prétendent qu'ils sont trop occupés et qu'ils n'ont pas un moment disponible à consacrer à la lecture. La première objection, celle du manque de bonnes revues et livres français, est assez plausible, bien que, étant donné que la plupart des dentistes ont fait des études classiques, il serait bien étonnant qu'ils ne possèdent pas une connaissance suffisante de la langue anglaise pour pouvoir lire assez facilement les écrits en langue anglaise.

Quant à ceux qui prétendent qu'ils ont trop d'ouvrage pour avoir le temps de lire, nous leur conseillerions de se prendre un associé, car sans s'en apercevoir, ils vont perdre du terrain à moins de pouvoir se tenir au courant des dernières découvertes. Ces années-ci, plus que jamais, celui qui reste trop longtemps à la même place recule. D'ailleurs, il n'y a aucun doute possible que dans la vie d'un dentiste, si occupé soit-il, il y a toujours quelques heures chaque semaine, divisées en périodes de quelques minutes à la fois, où il n'est occupé ni à la chaise ni au laboratoire, surtout s'il a un personnel quelconque à son emploi. Est-ce que les membres de notre honorable profession profitent de ces quelques moments de répit pour lire? Nous serions portés à en douter.

En effet, après une petite enquête auprès de certains gros distributeurs de livres scientifiques, ainsi qu'à l'aide de certaines informations fournies par les directeurs de trois des plus importantes revues dentaires américaines, il est regrettable de constater comme les dentistes de la province de Québec, surtout ceux de langue française, semblent se désintéresser de tout ce qui se produit dans le domaine de la profession dentaire, en terre d'Amérique. Sans doute, il serait bien préférable si nous pouvions puiser nos enseignements aux sources françaises, excellentes, nous voulons bien le croire. Mais, apparemment, les livres les plus pratiques en dentisterie ont pour auteurs, en général, des dentistes américains, et les revues les plus au point semblent être les revues américaines.

Voici quelques constatations assez édifiantes sur le peu de goût pour la lecture que nous manifestons, nous dentistes du Québec. Nous avons sous les yeux quelques chiffres de source officielle. Prenons d'abord le "Journal of the American Dental Association and the Dental Cosmos." Au 30 juillet 1937, cette revue, parmi les plus sérieuses, comptait 83 abonnés dans le Québec, parmi lesquels 39 ou 40 "dont le nom semble être français".—Du "Dental Items of Interest", à la même époque, nous apprenons que cette revue compte environ 100 abonnés dans le Québec, dont 42 aux noms français.—Toujours vers la même date, le "Dental Digest" nous apprend qu'il compte 132 abonnés 86 dont les noms sont "à consonnance française. Il y a dans le Québec, croyons-nous, environ 800 dentistes, dont la majorité sont de langue française. Amis lecteurs, nous connaissons assez votre intelligence et votre bon jugement pour vous laisser le plaisir de tirer vos propres conclusions.

Qui d'entre nous ne peut dépenser la modique somme de dix à vingt dollars par année pour des livres et des revues dentaires. Un abonnement pour un an à deux ou trois revues ne coûte pas deux pour cent de ce que nous dépensons par année pour fumer. Ces revues équivalent souvent presque à un cours "post-graduate", tant par leurs enseignements théoriques que par les informations pratiques que nous pouvons y trouver. Et on peut facilement, en achetant deux ou trois bons livres par année, se monter une belle bibliothèque professionnelle à peu de frais. Et alors, en employant nos moments tranquilles pour lire, nous avons à notre portée, chez nous même, les meilleures leçons de dentisterie, par les plus grands maîtres américains; Mead, Berger,

Smith, Winter, en chirurgie et extraction; Johnson, Black, Davis, en dentisterie opératoire; Doxtater, FRham, Schwartz, en prothèse et en bridge-work.

Qu'il nous soit permis de terminer en citant ces paroles du docteur Kells, un homme qui, pendant près de cinquante ans, a dépensé toute son énergie pour l'avancement de la profession dentaire en Amérique: "Tout dentiste se doit à lui-même et à sa profession de s'abonner à des revues dentaires. Peut-être ne trouvera-t-il dans chaque numéro et même au cours de toute une année qu'une seule idée nouvelle; mais si cette idée nouvelle contribue à faire de lui un dentiste un peu meilleur, il se trouvera remboursé au centuple de l'argent qu'il aura versé pour son abonnement."

YVES LAFLEUR, D.D.S.,

84 rue Mondor.

Saint Hyacinthe, P.Q.

Conventum des Chirurgiens-Dentistes des Classes 1912-13-14

Le 1er juin, dans les salons du Club Canadien, se réunissaient les chirurgiens-dentistes de la classe 1913 à laquelle s'étaient jointes les classes 1912 et 1914 pour célébrer le vingt-cinquième anniversaire de leur doctorat.

Que de choses se sont passées depuis cette date. Déjà! il y a un quart de siècle, nous quittions l'université pour envisager l'avenir qui s'avérait brillant pour tous. L'occasion était belle de retourner en arrière et de revivre quelques-uns des bons moments de notre vie d'étudiants.

1913, c'était l'époque lointaine où tout heureux nous aimions, entre deux cours, encombrer la rue de nos fantaisies, de nos cris et de nos facéties; nous avions vingt ans, la jeunesse, l'espérance, et l'avenir.

1913, c'était la belle époque où pour vingt cents nous dinions copieusement; nos besoins étaient moins impérieux; nous avions de grandes satisfactions pour "pas cher" et savions augmenter par mille et un trucs notre argent de poche.

1913, c'était l'époque où nous travaillions pour apprendre: aussi avec quelle ardeur, quel désir de réussir nous nous efforcions de reconstituer une cavité à l'or adhésif. (Que nous importait si le patient devait rester deux ou trois heures sous la digue.) Quel enthousiasme nous avions devant une obturation faite au marteau automatique.

1913, pourrait rappeler encore bien des choses: incidents passés durant les cours de nos professeurs et notre stage universitaire mais pourquoi s'éterniser sur ce qui ne sera plus?

1913 nous rappelle ceux qui, comme nous, escomptaient l'avenir, mais qui, hélas! nous ont quittés pour un monde meilleur. Sept professeurs sont morts et plus nombreux sont nos confrères disparus.

Au banquet nous étions heureux de compter quatre professeurs: MM. les docteurs E. Dubeau, J. Nolin, L. Franchère et G. Kent; un cinquième, malade, s'était excusé: Dr. A. Duhamel.

Malgré nos rangs de plus en plus clairsemés, vingt-cinq confrères étaient présents:

MM. les docteurs M. Fleury, T. Asselin, R. Charlebois, L. Hamelin, A. Comeau, W. Saint-Pierre, J. Lantier, M. Dérome, A. Chamberland, X. Laberge, J. A. Renaud, E. Chaussé, H. Thibault, P. E. Poitras, A. Dionne, T. Lefort, L. Laroque, H. Julien, P. Boutin, E. Charron, G. Seguin, L. Lemire, E. Seers, O. Cyr, J. Beland.

Nous nous sommes séparés, ayant vécu quelques heures, un rêve devenu, réalité, grâce à la gaieté de tous.

PAUL E. POITRAS,

2043 rue Saint-Denis, Montréal.

Le Dentiste et sa Responsabilité Professionnelle

Conférence du 4ème Congrès des Dentistes de langue française de l'Amérique du Nord en Congrès à Montréal, le 3 juin 1938

par F. PHILIPPE BRAIS, C.R.

L'ART dentaire, ou plutôt la thérapeutique dentaire, remonte, comme vous le savez, à la plus haute antiquité. Au début, elle était exercée par les médecins, et ce n'est que beaucoup plus tard qu'elle forma une véritable spécialité.

Hippocrate et Galien discutent les maux des dents avec les autres maladies et douleurs humaines, sans même en faire un groupe distinct.

C'est aux Etats-Unis que dans les temps modernes l'art dentaire prit son plus grand essor, donnant l'exemple à la France qui, en 1892, permit la fondation d'une corporation fermée. Avant cette date, quiconque pouvait s'occuper d'odontalgie. Mais déjà dans cette province, un groupe de dentistes avaient obtenu, en 1869, l'octroi d'une charte, en vertu d'un 'acte pour incorporer l'association des Dentistes de la Province de Québec.'

Aujourd'hui, le public est protégé, et nul ne peut pratiquer l'art dentaire sans avoir complété les études requises. Mais ce certificat de compétence n'est pas, comme on voulait le prétendre pendant un certain temps, un certificat de capacité. Le dentiste peut être recherché en justice par tout patient qui croit avoir été mal traité. Et le dentiste sera condamné si, de fait, d'après les principes judiciaires que nous examinerons, il est coupable d'erreur professionnelle.

Ce principe est facile à poser. Il est plus difficile à suivre, toutefois, dans son application. Dans cette province les deux principes de responsabilité qui peuvent nous intéresser sont édictés par les articles 1024 et 1053 du Code Civil.

A l'article 1024 il est prévu:

"1024.—Les obligations d'un contrat s'étendent non seulement à ce qui y est exprimé, mais encore à toutes les conséquences qui en découlent, d'après sa nature et suivant l'équité, l'usage ou la loi."

A l'article 1053, il est prévu:

"1053.—Toute personne capable de discerner le bien du mal est responsable du dommage causé par sa faute à autrui, soit par son fait, soit par imprudence, négligence, ou inhabileté."

On a longtemps cru que la responsabilité qui pèse sur le dentiste pour son erreur professionnelle découlait des principes de l'article 1053 (1382 Code Napoléon) mais aujourd'hui il est reconnu que si le dentiste commet une faute il ne s'agit pas d'un délit ou quasi-délit prévu par l'article 1053, mais bien au contraire, d'une faute contractuelle prévue par l'article 1024. Les conséquences sont importantes, comme nous le verrons tout à l'heure.

Ce développement dans la jurisprudence est tout récent en France. C'est Maître Peytel, avocat de la Cour d'Appel de Paris qui, dans une causerie intéressante à la Fédération Dentaire Nationale de France, disait:

"Autrefois et suivant les rites du Code Civil on a pensé, et les Tribunaux l'ont toujours jugé au cours du XIX^{me} siècle, que la responsabilité médicale était issue de l'idée de quasi-délit, le fameux article 1382 (1053 C.C. de Québec): 'Qui-

conque a causé un dommage par son fait en est responsable'. Il faut prouver une faute à la charge de celui qui a causé le dommage, prouver qu'il a commis le délit de blessure ou d'homicide par imprudence.

Comme en matière chirurgicale, médicale ou dentaire, il y a toujours une lésion subie par l'individu, c'est une blessure par imprudence, si on arrive au décès il y a homicide par imprudence; application des articles 319 et 320, c'est-à-dire qu'il y a responsabilité si on prouve à l'encontre de l'auteur de la blessure ou de l'homicide, une faute de négligence, d'inattention, d'imprudence, une infraction aux règles généralement suivies.

C'est ce qu'on a jugé pendant très longtemps; et ceci avait un gros avantage du point de vue médical, c'est qu'étant donné que la base de l'action était un délit, on ne pouvait poursuivre le médecin que pendant trois ans (1 an dans Québec); au bout de ce temps, les délits ne sont plus punissables. On ne pouvait plus dans ces conditions poursuivre les dentistes et leur réclamer 100,000 francs — car c'est toujours 100,000 francs, on ne sait pas pourquoi —; on ne pouvait donc, dis-je, leur réclamer cette somme légendaire après trois ans, car il n'y avait plus de base à une action pénale.

Seulement, Messieurs, la jurisprudence, c'est comme tout: il y a des progrès; et on en souffre."

Il explique cette évolution. Le dentiste était responsable parce qu'il avait la garde de la chose, de l'outil, du gaz qui avait causé l'accident, et critique cette doctrine comme suit:

"C'est d'autant plus absurde que l'article 1384 (1054 C.C. Québec) en créant une présomption de re-

sponsabilité, ne permet pas à celui qui est poursuivi comme gardien de la chose, qui a causé des dommages, de se dégager de cette responsabilité en prouvant qu'il n'a commis aucune faute; cela n'a aucune espèce d'importance. Il faut, pour se dégager de la responsabilité, qu'il prouve que l'accident est survenu par une force majeure, cas fortuit, faute de la victime et d'une manière générale par un fait étranger qui ne lui est pas imputable, comme dit la Cour de Cassation.

Il serait impossible dans les trois quarts des cas aux médecins, chirurgiens ou dentistes poursuivis, de se dégager de cette présomption de responsabilité, car comment voulez-vous, au bout d'un certain nombre d'années, retrouver les documents nécessaires pour faire les autopsies, pour permettre à de savants experts comme mon ami le Dr. Duvoir, de dire la vérité?

C'était le couperet, la guillotine, la condamnation assurée. Pourtant, Messieurs, il y a de très bons esprits —je suis obligé de le dire comme avocat—qui ont admis cette thèse."

Mais une nouvelle évolution a changé tout ceci et il a finalement été jugé, en 1933, que la responsabilité découlait non des articles 1382 et 1383 du Code Napoléon, contre-partie des articles 1053 et 1054 de notre Code Civil, mais d'un contrat de louage de services. Il donne les détails de la cause:

"Le Tribunal de Marseille a déclaré qu'il y avait une convention entre la malade et le médecin et qu'en conséquence la responsabilité étant contractuelle, la demanderesse avait trente ans pour poursuivre le médecin.

En même temps, le Tribunal de Marseille repoussait l'application de

l'article 1384 et ordonnait une expertise.

L'affaire est allée à la Cour d'Aix qui a jugé en 1933, et elle a rendu un arrêt intéressant, dans lequel elle précise d'abord, et ceci n'est peut-être pas très juridique, ni très sérieux, que le médecin est lié au malade par un contrat de louage de services. C'est là qu'est la grosse difficulté de la question de la responsabilité. Ceux qui ont voulu dire que le médecin était responsable non pas en vertu d'un délit, non pas en raison de l'article 1384, mais d'un contrat, ont été bien embarrassés quand on leur a demandé de définir ce contrat qui lie un médecin à son malade. Ce contrat n'existe pas dans les lois; on ne le connaît pas. Le Cour d'Aix avait trouvé que c'était un louage de services; cette définition est un peu légère, car le principe du louage de services, c'est la subordination. On ne voit pas bien le médecin qui ordonne, qui prescrit, se trouver en état de subordination à l'égard du malade qui n'a qu'à obéir."

Mais, il trouve la solution plus loin:

"On est arrivé à une formule assez heureuse dans l'arrêt de la Cour de Cassation du 20 mai 1936, c'est celle-ci: le médecin s'engage à donner des soins consciencieux, attentifs et conformes aux données actuelles de la science, c'est entendu. Mais ce que le médecin fait, c'est se donner tout entier à son malade, avec ses capacités, ses instincts, ses possibilités de diagnostic, avec sa science qui n'est pas obligatoirement la science des grands maîtres, mais une science normale et que doit avoir n'importe quel individu normal pourvu du diplôme légal.

Par conséquent pour que le médecin, le dentiste puissent être condamnés

en vertu du principe de la responsabilité contractuelle, il faut que le demandeur prouve à son encontre qu'il n'a pas respecté ses engagements, qu'il a été inattentif, négligent, imprudent, qu'il a manqué à ses devoirs et conscience, aux règles de l'art médical. C'est au malade à établir l'inexécution de la convention, la violation des obligations contractuelles. Ici nous arrivons à une distinction qui est celle-ci: il faut distinguer entre la faute légère et la faute lourde. Il y a dans le vocabulaire médico-légal des erreurs constantes sur ce point, et même dans les arrêts. Il faut distinguer. Tantôt les médecins, chirurgiens, dentistes, sont poursuivis pour faute de droit commun (inattention, légèreté, imprudence); dans tous ces cas, comme le commun des mortels, le médecin est tenu de sa faute, même la plus légère; une faute d'inattention même légère est une faute telle qu'elle peut entraîner la responsabilité du praticien.

Au contraire lorsqu'il ne s'agit pas de faute de droit commun, mais d'une faute scientifique, dans ce cas le médecin n'est responsable que s'il a commis une faute lourde, c'est-à-dire s'il a commis une faute telle qu'un homme ayant une intelligence normale, ayant des possibilités de compréhension normale, ayant un diplôme, n'aurait pas dû la commettre. C'est la faute impardonnable, inexcusable, comme disait un arrêt de la Cour de Cassation de 1932; il faut que la faute soit lourde pour engager la responsabilité et encore que la faute soit reconnue par un Tribunal éclairé par le rapport des experts. Car les tribunaux ne doivent jamais se mêler de questions scientifiques ni chercher à donner leur avis sur des questions chirurgi-

cales ou médicales pour lesquelles ils sont incompétents et sur lesquelles ils n'ont pas le droit de décider."

Cette même doctrine avait, d'ailleurs, été suivie dans cette province dès 1898, dans une cause de ALEX R. GRIFFITH v. X. L'Honorable Juge en Chef, Sir Alexandre, disait (il s'agit dans le cas d'un médecin, mais la responsabilité est la même) 2 Rap. de Pratique, p. 484, à la page 488, ce qui suit:

"La négligence ou l'inhabileté dans les services que le médecin est appelé à rendre constitue une faute contractuelle. Il n'est responsable que de sa faute lourde au lieu de la faute légère et très légère dont chacun est responsable en matière de quasi-délit, et c'est à tort qu'on appliquerait la règle des délits et quasi-délits au lieu de celle des contrats. (Fromageot, de la faute, p. 89 et suiv. 240 et suiv.; 8 Huc. No. 419; Dalloz, Rép. Vo. Responsabilité, 128 à 132; Supplément 156 à 158."

Si je cite le texte de ce jugement et un peu au long les vues de Maître Peytel, c'est qu'il s'agit là non seulement de la base même de la responsabilité, mais encore, comme dit notre confrère du Barreau de Paris, d'une doctrine légale quelque peu difficile à comprendre. Comme question de fait, sauf pour ceux qui ont eu à étudier le cas particulier, je suis convaincu qu'à prime abord au moins 90% des membres du Barreau de cette province vous diraient que la responsabilité du dentiste découle de l'article 1053.

Comme nous l'avons vu, toutefois, les médecins et les dentistes y ont gagné considérablement par la décision du tribunal qui basait leur responsabilité sur le délit contractuel. Cette compensation, toutefois, a eu sa contre-partie. La responsabilité délictuelle qui résulte de l'article 1053 se prescrit par un an (ou

3 ans en France). La faute contractuelle par trente ans. Si vous, dentistes, frappez un individu avec votre automobile, il ne pourra vous poursuivre après l'expiration d'une année, mais si vous l'infectez en soignant sa bouche, il aura trente ans pour demander des dommages.

Ceci, Messieurs, est d'une grande importance, et nous y reviendrons en discutant les précautions à prendre lorsqu'un incident de la pratique peut laisser soupçonner la possibilité d'une plainte.

Nous pouvons maintenant voir quelle est au juste cette responsabilité qui pèse sur le dentiste.

Les tribunaux ont reconnu, et avec raison, que l'art dentaire, comme l'art médical, était continuellement en évolution, et que le juge sur le banc ne pouvait en conséquence prendre sur lui de décider si telle doctrine ou telle autre devait prévaloir. Le médecin et le dentiste qui, honnêtement, exercent leur art au meilleur de leur connaissance, peuvent rarement se voir condamnés même si à l'égard de certaines doctrines on pourrait argumenter erreur de jugement. Il serait peut-être plus simple et plus précis de citer, à ce sujet, les arrêts de nos tribunaux. Le dernier et peut être le plus intéressant, au point de vue non seulement de doctrine légale, mais médicale, est celui de BOUILLON v. P. où, par un jugement unanime de la Cour d'Appel de cette province, on a libéré le dentiste de la condamnation apportée contre lui par le Jury qui avait entendu la cause.

Il s'agissait de la rupture d'une aiguille d'acier No. 23 dont s'était servi le praticien pour insensibiliser la mâchoire en injectant à l'épine de spyx. Au procès, il y avait eu grande controverse. Un nombre de dentistes, quelques-uns bien connus, les autres moins, étaient venus jurer qu'il n'y a aucune responsabilité à prendre à se servir d'une aiguille d'acier plutôt que d'une aiguille

de platine et que cette méthode est couramment et constamment employée. D'autres dentistes, appelés de la part de la victime, sont venus jurer que la doctrine enseignée aux élèves des universités est que par mesure de précaution on doit se servir de l'aiguille de platine, qui est plus chère, il est vrai, mais plus flexible.

Le Jury avait trouvé faute de la part du dentiste (je ne sais s'il y siégeaient des dentistes). La Cour d'Appel, saisie de la question, a rejeté la conclusion du Jury. Pour faire ceci, il fallait qu'on vienne à la conclusion non que le Jury s'était trompé, mais bien au contraire, qu'il n'y avait pas de preuve au dossier pour établir une faute. L'Honorable Juge Dorion, dans ses notes, dit:

"Il est généralement admis dans ces questions de pratique, que le praticien n'est pas tenu d'employer exclusivement le moyen ou l'instrument que est *réputé le meilleur*, mais qu'il peut se servir des moyens et instruments qui *sont couramment employés*. Et c'est avec raison, car dans ces matières où le *progrès* de la science *est constant*, et produit des changements qui ne triomphent définitivement qu'après de longues périodes d'expérimentation, il n'y a rien d'absolu et tout se réduit *aux règles de la prudence ordinaire*."

Et l'Honorable Juge Letourneau: "Il est donc, je le répète, possible que pour conclure comme il a fait, le jury ait entendu tenir pour imprudence ou faute l'emploi de l'aiguille d'acier.

"Et pourtant, ceci ne pouvait dans l'espèce lui être une base légale puisque l'on ne peut tenir pour une faute en soi l'emploi d'une aiguille d'un usage constant chez la plupart des praticiens. Bien que l'aiguille de platine soit depuis quelques années recommandée par les univer-

sités, il reste avéré que l'aiguille d'acier est encore d'un usage constant.

Si donc la réponse donnée par le jury vient de ce qu'il entendait blâmer l'emploi d'une aiguille d'acier plutôt que l'emploi d'une aiguille d'un calibre trop faible, il s'est fondé sur un fait qui bien qu'établi ne constitue par une faute, et conséquemment ne pouvait engendrer une responsabilité."

L'Honorable Juge Bond fait une étude minutieuse de la jurisprudence et arrive à cette conclusion:

"En conséquence, pour résumer, la proposition peut se formuler comme suit: un chirurgien dentiste qui, au cours d'une opération, suit une technique généralement adoptée par ses collègues dans la profession, et fait usage des instruments ordinaires employés par ses collègues, n'est responsable d'aucune faute à moins qu'il y ait d'autres circonstances particulières,"

Pour arriver à cette conclusion, il s'en rapporte aux autorités bien connues, tel que BROTHERS, 'Dental Jurisprudence', qui dit qu'il a été déclaré généralement en premier lieu que le dentiste prudent fait dans les circonstances, ou qui fait ce qu'un dentiste raisonnablement prudent n'aurait pas fait dans les circonstances, et qu'un patient en subit les blessures, est considéré coupable de négligence et responsable des dommages soufferts par son patient.

Aussi BEVEN, auteur anglais, 'On Negligence', 4ème Edition, à la page 1368:

"On fixe le degré d'habileté que doit employer un dentiste de la même façon que pour un membre de toute autre branche de l'art thérapeutique. La base est celle du praticien enregistré ordinaire et moyen, à moins qu'il y ait, dans le

cas particulier, des circonstances qui en indiquent une autre."

Il cite *LAMPHEER v. PHIPAS*, où il est dit:

"Toute personne qui se donne à une profession qui exige des connaissances spéciales, s'engage à apporter à l'exercice de son art un degré raisonnable de soins et d'habileté. Il n'entreprend pas, s'il est avocat, par exemple, qu'à tout événement vous gagnerez votre cause. Et le chirurgien n'entreprend pas de garantir une guérison; ni d'employer le plus haut degré d'habileté. Il peut y avoir des personnes qui ont une plus grande éducation et des plus grands avantages que lui, mais il s'engage à apporter un degré raisonnable d'habileté."

Dans une cause de *TURIFF v. THE KING*, 9 D.L.R. 676 (Cour Suprême de Saskatchewan).

"La pratique publique de la profession de médecin "comporte un engagement de la part du praticien qu'il a l'habileté ordinaire et les connaissances nécessaires pour accomplir ses devoirs envers ceux qui ont recours à lui en cette capacité;

mais il ne doit pas être tenu responsable dans une action pour erreur professionnelle simplement parce qu'un autre praticien aurait pu employer plus de soins."

Le Juge Bond pèse ensuite les témoignages contradictoires. Il dit:

"Le témoignage des experts est, jusqu'à un certain point, contradictoire, mais la prépondérance de la preuve favorise l'opinion que, dans cette localité du moins, des aiguilles d'acier sont plus communément employées que des aiguilles de platine. Il y a apparemment des avantages particuliers se rattachant à chacune, mais d'après la preuve qui nous est soumise, il est clair qu'un nombre de praticiens de réputation, pour une raison ou une autre, préfèrent faire usage d'une aiguille d'acier dans des conditions semblables à celles qui nous intéressent. Dans les circonstances, je crois que la déclaration que nous trouvons dans *PLANIOL & RIPERT*, et laquelle je réfère, trouve son application, à savoir: qu'il n'y a pas de faute en droit de se tromper sur un point où il y a controverse."

(à suivre)

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1938-1939

PRESIDENT

Stephen A. Moore.....London, Ontario

PRESIDENT-ELECT

W. W. Woodbury.....Halifax, N.S.

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

Stephen A. Moore (Chairman).....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
W. H. Woodrow.....Brockville, Ontario
R. L. Pallen.....Vancouver, B.C.
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

Stephen A. Moore (Chairman).....London, Ontario
R. L. Pallen.....Vancouver, B.C.
C. M. Fletcher.....Lethbridge, Alberta
G. L. Cameron.....Swift Current, Saskatchewan
M. H. Garvin.....Winnipeg, Manitoba
W. H. Woodrow.....Brockville, Ontario
Edward T. Bourke.....Montreal, Quebec
Ephrem Vinet.....Montreal, Quebec
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. A. McMurdo.....Summerside, P.E.I.

CHAIRMAN OF COMMITTEES

Dental Legislation.....J. Stanley Bagnall, Halifax, N.S.
Dental Health.....Harry S. Thomson, Toronto, Ontario
Dental Education.....A. D. A. Mason, Toronto, Ontario
Public Relations.....J. S. Lapp, Toronto, Ontario
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Canadian Army Dental Corps.....Ira Hamilton, Ottawa, Ontario
Journal.....To be appointed
Research.....Andrew J. McDonagh, Toronto, Ont.
Benevolence.....To be appointed
Ethics.....G. L. Prestien, Galt, Ontario
Indian Affairs.....Howard MacDonald, Saint John, N.B.
Constitution and By-Laws.....Robert Leslie Pallen, Vancouver, B.C.
Nomenclature.....Gerald Franklin, Montreal, Quebec
Insurance.....A. E. Higgins, Toronto, Ontario
Necrology.....C. M. Fletcher, Lethbridge, Alberta
Archives.....J. Stanley Bagnall, Halifax, N.S.

Many of the political perplexities that harass and threaten the world at this hour are but manifestations of the war against God. . . . While every century had its famous agnostics it was not until modern times that men have so openly denied God in any and every form.

Look where you will, the war against God is being fought on a hundred fronts. There will be no peace in the world until this war is ended. There will be no rest for the souls of men until the forces of atheism are defeated.

Nor is this a war without heavy casualties. Where there is no religion the arts are silent, for it is the God in man that strives to beautify life. There is no freedom, because this war is fought by slaves, and it is the knowledge of these truths that makes the people huddle together in crowds to try to avoid the challenge of their thoughts.—*Beverley Baxter in the "Sunday Graphic."*



W. W. WOODBURY, B.Sc., D.D.S.
Halifax, Nova Scotia.

President-Elect, Canadian Dental Association.
Dean of the Faculty of Dentistry, Dalhousie University.
Past President of the Dental Board of Nova Scotia.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, OCTOBER, 1938

NO. 10

Canadian Dental Association—President's Report

(Presented at Vancouver, June 30, 1938)

COMPARISONS are sometimes odious, but by the making of comparisons, judgments may be best arrived at. Individuals today are either better or worse off than they were nearly two years ago when we met in the City of Montreal on Thanksgiving Day, 1936. Most individuals are considerably better off than they were five years ago, for at that time the world was in the depths of a depression and no man knew when or how the tide would turn.

The results since our last meeting are difficult to estimate, but in the year just passed, there has been a marked increase in employment, also a decline in the number of persons on relief. For many, their condition today is no better than when we were last in session, perhaps a shade worse, with the increase in the cost of living and no commensurate advance in their income. In the world at large there is another war to keep an eye on, and there have been more alarms in the air than there were at the time of our last meeting, but democracy is becoming aroused and grows readier every day to face the dangers that might threaten.

The human race is moving forward to its destiny—whatever that might be—conflict or peace. If there is a conflict, peace will surely follow, and I feel sure

peace will prevail. The day has gone, I think, when democratic civilization was in danger of extinction, but now, come what may, I feel that civilization will prevail.

We are living in strange times, when gigantic forces are operating through irresponsible and sometimes radical instruments. All our interest lies in the preservation of Law, Freedom and Justice,—conditions that are synonymous. Without law, there is no freedom; without justice there is no law; without freedom there is neither law nor justice nor mercy.

It is not my intention to worry you further with general economics or social troubles, and I shall endeavour to be as brief as possible in recapitulating my actions during my term of office, for I realize that there are many important matters to be decided upon at this meeting, and I feel that the three days allotted for this purpose will be fully occupied.

On January 5, 1937, I was invited, as your President, to attend a meeting of the dental profession under the auspices of the Seattle Dental Study Clubs, which I accepted. On February 23rd, 1937, I was invited to attend and be the guest speaker at the meeting of the Alumni Association of the North Pacific College

of Oregon. At this meeting, 592 dentists were present from the Provinces of British Columbia, Washington, Oregon, Idaho, Saskatchewan and Montana. On May 4th, 1937, I was invited to attend and speak before the Washington State Dental meeting in the City of Bellingham. On July 2nd and 3rd, 1937, I was invited by the Alberta Dental Association to be present at their Annual Meeting to be held in Calgary, so that I might be able to explain certain angles of our national Association, and particularly our financial difficulties. I felt this was a duty which I should fulfill and so attended this meeting of the Board of Directors of the Alberta Dental Association. I was made most welcome and accorded all the privileges of their own members and was assisted in every way in getting information that would help our national organization to more closely understand the conditions existing in that province. I explained in detail the whole structure of our organization and particularly our financial difficulties. I assured Alberta that the Canadian Dental Association wanted to, and would do, all in its power to assist that province. I felt that my visit to their meeting was justified in that we now have a better understanding of each other.

It was my intention at this time to proceed to Winnipeg to attend the Manitoba Dental Association meeting on July 7th and 8th, and go on to the meeting of the American Dental Association on July 11th at Atlantic City,—also to attend in person the banquet to Dr. Gies, but unfortunately I was taken ill while in Calgary and felt I should return home, which I was compelled to do.

Here I must ask for your generous consideration, as I was unable to attend to any correspondence for some considerable time, and it was well into September before I was able to attend properly to my duties.

As you no doubt are already aware, on November 20th, I took up with the College of Dental Surgeons of British Columbia the matter of the legal body being responsible for the financial grant to the Canadian Dental Association and I was pleased indeed to realize that it would do so. I think I am correct in saying that the national organization is now supported by all the legal bodies in the Dominion, Ontario having given its support in the month of October last. I now feel sure that upon this structure this Board and its succeeding delegates should be able to build a truly national body.

On December 16th, I left for a tour of Alberta, Saskatchewan and Manitoba in the interests of the Canadian Dental Association. I addressed a gathering under the auspices of the Calgary Dental Society on Friday night, December 17th; Edmonton on Saturday night, December 18th. At Swift Current I had the pleasure of a visit with Dr. Cameron and left there for Regina on Monday and spoke in Regina on Monday night—Dr. Cameron was with me—and in Winnipeg on Tuesday night, December 20th.

A wonderful reception was accorded me at all of these meetings and I cannot express in words the kindness extended to me on all of my official visits. My one regret is that I was not able to cover the entire Dominion. I personally feel that official visits of this nature help a great deal to place before the profession what the Canadian Dental Association really stands for and is endeavouring to accomplish.

I think at this point I should mention that I was impressed with the lack of knowledge the average dentist had of our Canadian Dental Association, its aims and objects, and I would recommend for your serious consideration some method whereby more data of our national body could be given to the profession all over our Dominion. I have made a careful

study of the Constitution and By-laws and would recommend that a revision of both should be undertaken at this meeting. Conditions have changed considerably since the present Constitution and By-laws were adopted, and I feel that they should be brought up to date. I trust you will give this the attention it requires.

I would also recommend for consideration that in future the President of the Canadian Dental Association should not be a delegate. I mean that in the present situation there should be, in addition to Dr. Moore, who is my successor, two delegates from the Province of Ontario. I would be glad to give my reasons for this recommendation to the Committee appointed for consideration of this report.

I would also recommend for your consideration at this time re-organizing the officers of the Journal of the Canadian Dental Association. Assistance in some manner will have to be given to Dr. Garvin, our Editor, and to Dr. Moore, Business Manager of our Journal. I am thoroughly acquainted with the amount of work which has fallen upon Dr. Garvin's shoulders, and I would like here to pay tribute to Dr. and Mrs. Garvin for the great personal sacrifice in time and labour which they have made to make our Journal the success it is. I trust some recognition of their services will be made at this meeting. The same applies to Dr. Moore, the Business Manager. While I did not have the pleasure of going into details of the business management of the Journal as I did with Dr. Garvin, I could readily see he also was under high pressure of work, and to these two gentlemen and Mrs. Garvin, the success of our Journal is due.

I would also recommend for your consideration at this meeting the matter of a new Code of Ethics, or a revision of the present one. My reasons for this are too

lengthy to be given here, but I will be pleased to give them verbally before the committee on the President's report.

I was in hopes that our Association would be incorporated during my term of office, but as this was not accomplished, I would strongly recommend to the delegates that it be done immediately, since all the legal bodies are now supporting the C.D.A. This question has been asked on several occasions.

I would also recommend re-organization of all committees appointed by the C.D. Association. It would seem to me that better results would be obtained if some committees that never function were eliminated. I would also recommend that a Board of Trustees be established for the handling of our Journal, consisting of three men—one from Eastern Canada, one from the Middle West, and one from the West,—and that they be responsible to the Board of Delegates.

I would also recommend that this Association meet once a year instead of every two years. Two years is too long an interval with the ever-increasing responsibilities which now devolve upon the President. Some quick decisions had to be made on several occasions, and I hope the delegates and members of the Executive Committee will be able to realize the handicap of the distance between the Secretary and the President's office.

In my travels through Western Canada and its different centres, I was impressed with the lack of interest shown by the profession in our dental schools, and I express the hope that this Association will take upon itself the task of giving our Canadian dental schools the necessary assistance in recommendations that will be of a useful nature.

During my term of office, I had a vote taken whether or not our National Association should sponsor a convention for its annual or bi-annual meeting. The majority was opposed to this policy. I

would recommend, gentlemen, that at this meeting a decision be reached on this vital matter, for as long as we are meeting as a Board of Delegates, the prominence and importance of a truly national body will never be attained.

Now, gentlemen, I must come to a stop, but before doing so I wish to go on record in this report as expressing my gratitude to the delegates for their kind co-operation and assistance given me. Particularly must I bring to your attention the faithful and efficient service rendered by our secretary, Dr. Bagnall. I cannot

express in words my personal appreciation of his help during my term of office, and I recommended that some acknowledgment be made to him for the services rendered, and that provision be made for either a part-time Secretary or a full-time secretary under salary.

I welcome you all to this extreme western city. I hope your deliberations at this meeting will be pleasant to yourselves and beneficial to all of our profession.

(Sgd.) R. L. PALLEN.
Vancouver, B.C., June 30, 1938.

Impression Technique for Edentulous Mouth*

By IRVIN H. ANTE, D.D.S., and FRANK MARTIN, D.D.S., Toronto, Ontario.

IN MAKING this presentation it is my desire to give the dentist in practice a better means of serving the public in denture service, one that will give a great personal pride in achievement.

The intelligent application of this technique is so nearly universal that any dentist of reasonable skill, who will acquire for himself the necessary knowledge, and exercise patience, will obtain results which will surpass his expectations.

The technique which follows is not entirely original, as valuable material has been taken from various sources. Men like Gysi, Hanau, House, Fish, Hall, Green, Cummer, Fournet and Tuller, who have contributed the results of their research, will stand out as founders in the development of scientific denture

prosthesis, and to them much credit is due for the progress and advancement of this service.

The major factors to be considered in any method of complete denture construction are:—the impression, condyle path registrations, occlusion, stability and form. To discuss all of these factors in detail is out of the realm of this paper. Therefore, the principles and technique of the first factor only will be presented, namely, "The impression."

A good impression should be the first step in denture construction. It should provide adhesion and stability to the finished case with comfort to the patient.

Horizontal stability of the lower is secured by extending the heels of the impression buccally and backwards until they engage and turn upwards on the for-

*Presented before the Montreal Dental Club, the Ontario Dental Association, and New York State Societies.

ward face of the ramus. Disto-buccally the heels extend into the buccal fold to the external oblique ridge. On the lingual side, the flange is extended downward below the mylohyoid ridge in the first molar and bicuspid region. It does not depend on the lingual undercut for mechanical retention below and behind the third molars but firm contact with the soft tissues is important along the entire lingual side.

Atmospheric seal or suction is secured in both the upper and lower impressions by so muscle moulding the edges that they are extended to the area where an unbroken contact at the impression periphery with movable soft tissue is secured without irritation.

Peripheral seal should be sufficient to hold the denture in place without interfering with the movement of tissues in function. The extension of peripheral seal should not be over two millimeters upon movable tissue. A balance of tissue tension should be secured which will be uniform throughout and will not compress beyond physiological endurance. The wide-open mouth is the ideal position to secure these requirements along with the use of an impression material which can be nearly moulded at mouth temperature.

Active stability is secured in the lower impression by completely subduing the upward thrust of the mylohyoid and buccinator muscles and converting these very upward thrusts into one of our most powerful retentive factors. Their formerly misdirected energy is now exerted to hold the impression firmly in place.

DIGITAL EXAMINATION

Survey the physical condition of the oral tissues carefully and determine the possibilities of successful results. Carefully examine the mouth with the finger to tell in advance what one may expect to procure in the impression.

UPPER IMPRESSIONS

Take cognizance of these factors—Is the soft palate curtain horizontal or vertical? To what extent can the post-dam zone be safely compressed? Judge the thickness, strength, and flexibility of the buccinator muscle, orbicularis oris and frenum and determine to what extent each may safely be displaced. Note the size and condition of the hard and soft tissue areas and the alveolar ridge.

Take an oversized modelling compound impression with Kerr's white, Ash white or any other compound with a medium softening point. Secure an impression of labial and buccal borders, the buccal portion around the tuberosities and the posterior palatine area.

Locate the two little pits (toveala palatine) in the centre at the posterior border of the hard palate and mark them with an indelible pencil; also, locate two zygomatic notches with a ball burnisher. They are lingual to the tuberosities and distal to the greater palatine foramina. Draw an indelible line from the pits of the zygomatic notches. It is anterior to this line that we establish the post-dam zone. There is a width of from five to ten millimeters of soft compressible tissue, without movement, in this area.

Moisten the impression and re-insert it for transfer of the indelible markings to the impression. Remove it and with a sharp knife scrape a groove along the indelible or post-dam line. Pour the snap impression with a mixture of two parts plaster and one part stone to secure a model. Having obtained a model, take a pencil and outline periphery just at the turn of the buccal and labial fold clearing all muscle attachments. Now select a close-fitting tray of flexible metal. (Crescent No. 1, 2, 3, 4, 5 or 6 are quite suitable and No. 3 and 4 are most useful sizes.) Cut the handle of the tray selected to $\frac{3}{4}$ " long and bend it down. Now

adapt the tray to the model by bending with pliers and tapping to place with a horn mallet. Trim with shears to pencilled and post-dam line.

Take the newly adapted metal tray to the mouth for testing but before doing so, again make a careful digital examination of the entire area. The metal tray should then be tried in, observing any over-extension and making further allowance by trimming the tray if necessary.

Now cover the tray with a *thin* layer of impression compound such as Kerr's white. Soften it in water 150 degrees, then press to the maxilla, upwards and backwards; remove it and note if the compound is evenly distributed about the tray. No part of the tray should be exposed through the compound. Trim off any excess compound or add more of it where insufficient. Again soften it in the water and press it firmly to the maxilla. Hold the tray with the middle finger in the centre of the vault and instruct the patient to suck the finger and swallow. At this stage the impression will often show complete muscle moulded border and no further moulding will be necessary. If, however, this is not accomplished, the final moulding is carried out in sections.

Muscle trim, first, the buccal surfaces from the tuberosities to the bicuspid areas (both sides). Then trim the anterior and finally the post-dam area. Reheat each section with the torch in order and reseat. Have the patient suck the finger until the buccal and labial borders are muscle moulded. To muscle mould the post-dam area, have the patient suck and swallow two or three times. Trim off excess compound on labial, buccal and palatine borders.

Outline the hard areas in the mouth with an indelible pencil, then transfer to the impression. Relieve these areas in the compound by scraping or by cutting small channels. Dry heat these relieved

areas and reseat the impression. Repeat this procedure until considerable stability is secured.

Place a strip of Kerr's plastic wax, 3 mm. wide by 2 mm. thick, along the buccal and anterior borders and press it to place with the thumb to cover about 5 mm. of the inside and outside surfaces of the border. Place another piece, 5 mm. wide, along the posterior border and press it to place with the thumb to cover about 10 mm. of the post-dam area. (*Caution*—Do not use too much wax).

Dip the impression in and out of hot water quickly; reseat it carefully and press it firmly to place. Have the patient again suck the finger then swallow, grin and say "Ah," "P" and "B." Remove the impression and chill it thoroughly. Reseat and test for stability by repeating the above movements.

At this stage you should have complete stability. If not, relieve the areas of over-extension where the wax is pressed out very thin, exposing the compound. Flow melted wax over these areas with a hot spatula and while the wax is soft reseat the impression and repeat muscle movements.

The impression should present a smooth, rounded, muscle-moulded peripheral border with adhesion and peripheral seal without over-compression of the mucosa, thus producing complete stability with comfort to the patient.

Failures—

1. Insufficient relief over hard areas.
2. The labial and buccal flanges too thin, short or over-extended.
3. Lack of peripheral seal and mucosa compression.
4. Failure to compress the post-dam zone, also over-extension or too short in this area will result in loss of stability in some soft palate positions.

LOWER IMPRESSIONS

Every credit is due to Drs. Fournet and Tuller for their original ideas and suggestions in connection with this new lower impression technique and their work is acknowledged as the basis for this part of the presentation.

Select a tray which is wide and long, one that seems too large for the case (S.S. White No. 101 and 103). Bend the disto-buccal ends of the tray up, then fit it to the mandible. The purpose of this is to allow the compound to fill the buccal fold in order to form a wide buccal roll, posterior to the molar area and to obtain an impression of the tissues on the anterior surface of the rami as high as possible. Use any high fusing impression tray compound such as S.S. White black or Ash white. Wet heat it to a medium consistency. Insert it in the mouth and press down and back, the anterior first, then the heels, with the thumbs in the mouth, and the fingers under the chin. Press it to place firmly. With the finger, manipulate the compound at the posterior, buccal and lingual flanges. Instruct the patient to protrude the tongue and raise it as high as possible. Remove carefully, pressing up and back, then chill. Get a good over-sized snap impression.

This impression is to compress all soft yielding tissues and to give an impression of the bony outline. Pour the impression with a mixture of two parts plaster and one part stone to secure a model. Construct a lower tray on this model by using a lower baseplate instead of the vulcanite tray, as advocated by Drs. Fournet and Tuller, for taking the final impression.

First, draw the outline of the tray on the model with a pencil; starting at the disto-buccal area, it should *parallel the external oblique ridge* as far forward as it can be followed and to the visible muscular attachment in the buccal and labial areas; lingually, it should go to the floor

of the mouth as indicated by the impression; at the heels, it extends across the mandible posterior to the pear-shaped body in the retromolar fossa with the buccal and lingual corners merely rounded.

BASEPLATE TRAY

Heat a lower baseplate, such as S.S. White's and adapt it to the model, then trim it to the pencilled outline. Bend a piece of 10 gauge wire to form a handle and fit it to the crest of the ridge. Reinforce the tray along the ridge with any impression compound. Heat the wire in the flame and embed it into the compound. Reinforce the tray again with heated compound over the wire and upon the ridge of the baseplate tray.

IMPORTANT—Trimming the tray in the mouth:

Before beginning to trim the tray, a digital examination of the mouth should again be made. Judge the thickness, strength and flexibility, also attachment of the mylohyoid, triangularis and the geniohyoglossus muscles. Note the sharpness of the mylohyoid ridge and the delineation of the external, oblique ridge. Determine the character of the buccinator muscle and the extent to which it may safely be displaced. Note the size of the tongue and the extent of control the patient has over it.

Keeping the above points in mind, make a digital examination with the tray in the mouth to determine the degree of possible extension in all areas. Mark the tray with a pencil to indicate the extent and location of trimming.

The tray *must parallel the external oblique ridge* from the disto-buccal angle to the first molar area, where it is abruptly trimmed to allow freedom to the muscle movement of the buccinator; the disto-buccal area should slip beneath the fold in the buccinator muscle, with the disto-buccal corner merely rounded.

The upper posterior area of the tray extends over the pear-shaped papillae and upon the anterior surface of the rami in the region where the buccinator muscle crosses the mandible to its distal attachment on the pterygomandibular raphe.

The height of the tray may be judged by instructing the patient to open the mouth widely. The tray should not be displaced if trimmed to correct length. The tissues in this area should not be compressed.

Anterior to the first molar region, trim the tray to the line of the buccal and labial muscles and the frenum by pulling the cheeks and lips up and in with the thumb and finger.

Trim the glossopalatine region, or the first three-quarters of an inch of the posterior lingual until the tongue can be thrust out of the mouth without displacing the tray.

Trim the molar region, mylohyoid area, or the second three-quarters of an inch, until the patient can place the tongue in the opposite cheek without the tray rising.

Trim the lingual bicuspid region, third three-quarters of an inch, until the patient can place the tongue in the roof of the mouth and the tray will not rise.

Trim the frenum linguae region, anterior lingual, until the patient can place the tongue in the corners of the mouth without the tray rising. It is better to trim highly rather than widely in this area but the width must be determined by the frenum insertion.

Trim all surfaces *just to the soft tissue seal*. The tray is properly trimmed when it has horizontal stability and is not displaced by any lip, cheek or tongue movements when held down with light pressure.

Final step in lower impressions is taken with use of Kerr's plastic wax.

Dry the baseplate tray inside with hot air or dry heat. With a hot spatula, flow

a *thin film* of wax (Kerr's plastic) on the entire inside surface of the tray. Press to place with the thumb, strips of Kerr's plastic wax, 5 mm. wide by 2 mm. thick, on all inside border surfaces of the tray, the lingual, labial and buccal; then roll the wax over the edge of the tray to the outside surface of the peripheral border for about 3 mm. The inside strips of wax should not necessarily extend up to the crest of the ridge.

Dip the baseplate tray with the wax in and out of hot water then seated to place in the mouth and press it firmly to the mandible with thumbs in the mouth and fingers under the chin in the bicuspid and molar area. Instruct the patient to raise the tongue while doing so and hold to place while the patient registers mylohyoid imprint on the lingual border by placing the tongue to the roof of the mouth and out.

Mould the disto-buccal border by pulling the cheek up and in with the thumb and fingers. The buccal border is muscle moulded by drawing the cheek up, in, backward and forward. If the muscle attachment is prominent, have the patient open widely and press the cheeks in at both sides. Muscle trim the labial border by drawing the lip up, in, backward and forward.

The disto-lingual border is muscle trimmed by the patient projecting the tongue from the mouth as far as possible. The lingual border in the first molar and bicuspid areas is muscle moulded by the patient raising the tongue to its extreme height, with the mouth open then putting the tongue in first one cheek then the other. The lingual border in the incisal area is muscle moulded by having the tongue thrust upward, outward and into each corner of the mouth.

Hold the tray firmly to place with the fingers in the mouth and the thumbs under the chin while the patient is registering all of these movements.

Muscle trim the upper posterior border of the heels by holding the impression in place and moving the mandible from side to side as in lateral motion; close and swallow.

Test for complete stability with the tongue in each position—high, low and medium.

If stability is lost or if the impression is displaced, correct the border where the leak occurs by tracing on more wax and muscle trimming it again, or, if there is over-extension which causes displacement, trim down the tray where the wax is thin, replace wax with a hot spatula and while soft, insert and repeat the moulding movements.

Remove and chill the impression thoroughly, trim off any excess wax, then test it again for complete stability. Watch the seal in the labial and the anterior lingual and the lingual bicuspid regions.

At no time during the muscle moulding should the wax be reheated in hot water.

Examine the impression carefully. It should have a thin layer of wax covering the entire surface of the tray with smooth round borders. It will be noticed that both layers of wax have united and covered the crest of the ridge.

Make a model of stone and preserve all contour of muscle moulded borders.

The advantages of this wax technique are:—

1. The softened wax will not stick to fingers or lips.

2. All peripheral borders are muscle moulded in a few minutes.

3. The mucosa is evenly compressed without undue pressure, which eliminates "after" soreness.

4. Defects in the impression are easily recognized and corrected.

5. The lateral extension on the denture base is reduced to the minimum.

6. The lower impression can be taken in less time than the upper.

7. Ample time is afforded the operator to take the impression without reheating any part of it.

8. It is possible to secure stability in the lower impression equal to that of the upper.

9. The time necessary to secure an ideal impression has been reduced to the minimum.

10. The technical procedure is not difficult and no expensive equipment or supplies are necessary.

If one experiences failure it is likely due to one of the following causes:—

1. Lingual flanges too short in the bicuspid molar area.

2. Insufficient extension up the face of the ramus.

3. Failure to extend and parallel the external oblique ridge.

4. Lack of evident folding or compression of the disto-lingual and mid-lingual borders. An absence of contact with mylohyoid muscle will result in loss of suction in some tongue positions.

5. The whole peripheral border should show fair muscle moulding.

6. Failures may occur with patients whose rami are more obtuse than 90 degrees, flabby mylohyoid muscles, a very short frenum linguae and very loosely attached membrane. While the results in these cases are not ideal, they are better than those obtainable with any other technique.

Those who have made an intelligent application of the technique believe it is a great stride in eliminating some of the difficulties from efficient edentulous impression procedure.

Medical Arts Building.

"The only security that a man can have in this world is a reserve of knowledge, experience and ability."—Henry Ford.

Physical Factors to Be Considered in Making a Dental Diagnosis*

By CLAYTON A. SWANSON, D.D.S., Minneapolis, Minnesota, U.S.A.

THROUGH the mediums of the public press, magazine, radio health centres, etc., the attitude of the public toward dental and oral health is quite a contrast with what it was just a few years ago. Today the average person is more or less well-informed concerning the possibility of systemic disturbance being caused by dental infections and other foci.

Dentistry's obligations are many, and it is our duty to serve the public to the best of our ability. It is a well known fact that from 85 to 95% of the population suffer from dental caries. Dental disease, when neglected, may have far reaching results, and through secondary infection, many a patient becomes involved with any one of a number of serious physical disabilities, such as infections of the heart, joints, kidneys, eyes, and other parts of the body. We must continue to spread this information and we should endeavour to carry home the fact that the loss of teeth, health and efficiency among the people who have been neglected, is not only a sad thing to contemplate from the humanitarian point of view, but that it represents a great economic loss to the community, and on the whole, to our entire civilization.

We know that health is a social asset of fundamental importance and we have to acknowledge that disease is a social menace.

When we realize how rapidly our

profession has developed and advanced in importance and usefulness during the last few years, and when we realize the ever-increasing demands which are being made upon us no one can foretell to just what heights dentistry will rise. The paths of the future lead definitely toward increasing activity and enlarged opportunities for further service. It may be true that in the past, the achievements of dentistry have been lacking in the elements of romance and in the spectacular results which have been shown by medicine and surgery, in some of their most important developments. However, the latent possibilities of dentistry as a factor in the prevention of disease, have caught the imagination of many thinking people more recently, and it is my sincere belief and hope that individuals of wealth, and groups acting as trustees in the handling of large accumulations of money, will find satisfaction in supporting dental research and dental findings. One of the bright things in the field of dentistry has been the establishment of the Zoller Institute for dental research in the city of Chicago.

Columbia University recently was granted \$100,000 to be spent in the next three years to determine, if possible, the definite cause of dental caries; also a like sum to determine, if possible, the cause of periodontoclasia in a like number of years. This certainly revives hope that perhaps all has not been

*Presented at the Convention of the Saskatchewan Dental Society, in Regina, May 29-31, 1938.

in vain and some day we may have the scientific facts with which to deal.

Many patients today who are seen by dentists are those who have been to some physician, who has made a diagnosis of their physical condition and the physician has referred them to their respective dentists for a dental diagnosis.

Since the mouth is universally recognized as the special field of the dentist, he should consider himself responsible for the detection of every morbid condition that may exist there. A general examination of the mouth should be just as much a routine affair in the case of a patient who presents himself for the treatment of diseased teeth as is the general examination of the body by a physician when a patient complains that his heart is acting badly. However, such an examination is the exception rather than the rule.

Unfortunately there is much disease in the mouth of which the average patient knows little or nothing and is liable to overlook or ignore. It is liable also to be overlooked or ignored by the average physician, if the patient has occasion to seek his services, for the average physician is just about as familiar with oral pathosis as the average dentist is with blood chemistry. The purpose of this paper is to call attention to some of these pathological conditions which the average dentist can detect by the use of everyday methods.

Delayed dentition and the eruption of badly formed teeth may result from rickets, congenital syphilis or cretinism. A blue line at the gingivae usually indicates chronic lead poisoning; copper, bismuth, and silver poisoning occasionally produce similar lines.

Spongy bleeding gums are often associated with scurvy. Swelling of the gums with tenderness and increased salivation occurs in mercurial poisoning.

DISEASES OF THE TONGUE

Fur on the tongue consists for the most part of accumulated epithelial cells, particles of food and micro-organisms. It occurs in a great variety of diseases, both local and general, and is directly due to the disturbed diet which the patient adopts in these conditions.

A light uniform coat is often noticed in health, particularly in those who sleep with their mouths open. Other causal conditions are (1) febrile disease; (2) dyspepsia; (3) catarrhal conditions of the nose and throat. Very little diagnostic significance is to be attached to the appearance of the tongue in diseases of the stomach.

Circumscribed furring often indicates local disturbance, such as a jagged tooth. Unilateral furring may result from disturbed innervation, as in conditions affecting the second and third branches of the fifth nerve. It has been noticed in neuralgia of those branches and in fractures of the skull involving the foramen rotundum.

The dry, brown and fissured tongue is noted in asthenic fevers, as typhoid fever, pneumonia, uremia, and septicopyemia.

A red beefy tongue is sometimes noticed in chronic wasting diseases; it is of quite frequent occurrence in dysentery and diabetes.

A "strawberry tongue" is characterized by a white fur through which project bright red and prominent papillae. It is seen in the early stages of scarlet fever.

Chronic enlargement of the tongue occurs in myxedema (cretinism), acromegaly, and occasionally in syphilis.

Trembling of the tongue is noted in many conditions. It is particularly marked in asthenic fevers (as typhoid), in alcoholism, and in parietic dementia

Red tip and edge of tongue is an early symptom of pernicious anaemia.

Fissures on the tongue may result from severe glossitis, syphilis, carcinoma, tuberculosis, or the impact of a jagged tooth.

Scars on the tongue often result from syphilitic lesions or from the tooth wounds of epilepsy.

Bad breath is often due to local inflammation as chronic rhinitis, periodontoclasia, tonsillitis, etc., to the retention of decomposing food, to caries of the teeth, to certain lung diseases, especially gangrene and bronchiectasis, to dyspepsia, and to the ingestion of certain foods or drugs.

STOMATITIS

Acute catarrhal stomatitis is a frequent accompaniment of specific fevers and wasting diseases. In children it is commonly seen in association with digestive disturbances, the result of improper food or faulty hygiene, especially of the mouth.

Apthous stomatitis is usually seen in children. Digestive disturbance is an important predisposing factor. Treatment consists in relieving the indigestion and using mild antiseptic mouth washes, such as a solution of potassium permanganate.

Ulcerative stomatitis may develop at any period in life. It is sometimes epidemic; it is regarded as contagious. The common name for this disease is "trench mouth." The alveolar margin of the jaw is chiefly affected. The gum becomes red, swollen and spongy, and a linear ulcer with a grey sloughing base soon forms and may extend to the cheek and throat. The glands under the jaw are swollen. In severe cases, loosening of the teeth and necrosis of the bone may follow. The constitutional disturbance is often marked. Recovery, however, is the rule.

Specific treatment as is used by most dentists today is the treatment where we use hydrogen peroxide as a spray to spray off all soft food particles around, in between the teeth, and under the free gum margin. We then use neosalvarsan dissolved in distilled H₂O and apply it with cotton, on cotton pliers, to the surface of the soft tissues and teeth, and lastly with the solution that is left in our beaker, have the patient use as a rinse in the mouth and until he has to expectorate. Eye, ear, nose, and throat men use 3% chromic acid and have had satisfactory results with it.

THRUSH

Thrush is a contagious disease of the mouth caused by the *saccharomyces albicans*, an organism related to the yeast fungus. The characteristic feature is the occurrence upon the mucous membrane of small white elevations which on forcible removal leave an abraded surface. Symptoms of catarrhal stomatitis are also present. The disease may extend to the pharynx, esophagus, and larynx. Microscopic examinations reveal the mycelial threads of the fungus.

Treatment.—Thrush generally yields to simple measures, such as removing the patches with a soft rag soaked in a solution of sodium bicarbonate, 1 dr. to 5 oz., and cleansing the mouth at frequent intervals with a weak solution of borax or sodium hypo-sulphite 20 gr. to 10 oz. Gastro-intestinal derangements should receive attention. To prevent reinfection, everything coming in contact with the patient's mouth must be thoroughly cleansed.

LEUKOPLAKIA BUCCALIS

In Leukoplakia buccalis there are slightly elevated smooth, opaque, whitish plaques on the lingual or buccal mucous membrane. There are no subjective symptoms; excessive smoking is a common

cause. Syphilis appears to be a factor in some cases. It is sometimes associated with chronic infections of the skin, notably psoriasis. Epithelioma of the mouth is not an uncommon sequel.

The conditions of the gingivae extending from a gingivitis to a deep seated or prolonged pyorrhea are conditions which each and everyone of us see every day of our lives. These conditions are a menace and a focus of infection, and demand our earnest attention, as many dentists neglect this phase of mouth health.

RADIOGRAPHS

Certainly it is no longer a secret that one of the necessities in aiding a dentist to make a diagnosis for any patient, regardless of his physical condition, is a complete set of good x-ray pictures. Reasons for x-rays and conditions associated with teeth disclosed by the x-ray, are as follows,—

1. Progressiveness of pyorrhea can be checked or watched.
2. Impacted teeth, odontomata, pulp stones, cysts, granulomata.
3. Cavities between teeth and cavities under the gum tissues in apparently normal teeth.
4. Faulty root canal operations.
5. Close proximity of fillings to pulps.
6. Retained roots and infections under bridges.
7. Cavities under dental restorations.
8. Hypercementosis-curved roots, areas of condensing osteitis.
9. Osteomyelitis.
10. Fractures either of teeth or bones.
11. Cases where no teeth are present, whether or not dentures are being or have been worn;

A. Retained abscess cyst. B. Broken teeth. C. Foreign bodies, such as amalgam fragments from crushed fillings falling into sockets during extraction. D.

Broken burs, needles, guttapercha points, and pieces of metal.

Along with the x-ray pictures, we need and should use some type of vitality tester. Even then there may be a question as to the vitality of many teeth. Transillumination is another aid in making a diagnosis. Without a question, in many cases it is necessary to make a study-cast of the mouths of our patients which can be mounted on an articulator, in order to arrive at the correct diagnosis from a restorative viewpoint.

The dentist should know now whether or not there are teeth that are evident as foci of infection, whether they are questionable; whether or not there are conditions of the soft tissues of the mouth which are questionable, whether or not there are buried roots, cysts, residual areas, etc.

PHYSICAL CONDITIONS

Before a dentist begins any reconstructive work he should have some idea of the physical condition of the patient. By this I do not mean that a dentist should be a physician or an internist, but I do mean that the patient today demands that we, as dentists, in order to make the proper diagnosis of the oral conditions, should have a general idea of the physical weaknesses which attack all of us.

General physical conditions are apparent at first sight, namely loss of weight, posture, soft or flabby muscles, whether or not he breathes through his nose, etc. Mental conditions are noted during the progress of treatment and conversation.

At this time the dentist should obtain from the medical men, the physical findings of the patient, preferably in writing, or the dentist should see the chart representing the physical condition of the patient; if hospitalized, findings of temperature, blood count, urinalysis,

Wasserman, past history, present physical findings and prognosis.

SECONDARY INFECTIONS

How do teeth cause secondary infections in other parts of the body? The direct route or routes are today not definitely known. It is thought that teeth may cause secondary infection by direct extension into adjacent structures or by metastasis in distant parts of the body. We know that osteomyelitis in the alveolar processes is, as a rule, the direct result of an infected tooth or trauma. Also an infected antrum is a typical picture of direct infection.

When disease is due to the actual transference of bacteria from a focus to different parts of the body, we have a metastatic disease. The theory is that the bacteria are carried by either the blood stream or lymph stream to a foreign point. Here they localize and multiply and the result is an infection removed from the source. Another theory is that toxins eliminated by bacteria encapsulated at a focus may produce functional or structural changes in different parts of the body.

We all know that following scarlet fever and some other infections, sometimes we get a kidney condition called glomerulonephritis. This is not due probably to a focus of infection as the scarlet fever itself is a streptococci infection. However, the larger percentage of glomerulonephritis cannot be traced to any specific infection, and in these cases, it has been found that foci of infection, of which tonsils, sinuses, and teeth are the most common, are the exciting causes.

Renal calculi or kidney stones were produced in dogs by Drs. Rosenow and Meisser at the Mayo Clinic many years ago. The kidney conditions found in dogs that had previously been injected with the bacteria grown from the cul-

ture media, developed from the extracted teeth of infected individuals, were the same as those found in the patients from whom the teeth were removed.

Chronic types of nephritis are caused by focal infection, and the elimination of infection in such a condition as this is certainly indicated. In diabetes, the condition is one in which the pancreas is at fault. The diagnosis is made through urinalysis and blood sugar determinations. The only connection between diabetes and dentistry is that an individual does not have the resistance he should, therefore does not respond to local treatment as rapidly as a normal individual would. He is not a good subject for surgical procedure until the blood sugar has been reduced to approximately normal.

HEART INFECTIONS

For our work, we are interested only in infectious heart diseases. Under infectious heart diseases, we will include endocarditis, myocarditis, and pericarditis, but as we know that all of these are inter-related, what we say for one of them will apply to all three.

Most of the disability occurring in an infectious heart disease is due to endocarditis, considerably to pericarditis, and a very small amount to myocarditis. The lesion in endocarditis is usually a thickening of the valve margin due to an odd valvulitis or infection of the valve.

Practically all of the valvulitis occurs after rheumatic fever or one of its associated diseases, such as chorea or growing pains. Rheumatic fever is a streptococcus viridans disease caused by foci of infection such as tonsils, sinuses or teeth. One of the great therapeutic measures is to remove the source of infection. It is probably true that the tonsils come first as a focus in this disease,

but very close behind them come the teeth, to be followed by the sinuses.

75% of heart conditions are either due to high blood pressure or coronary disease; 25% are perhaps due to rheumatic fever. In 1928 we find the following causes of death per 100,000 in Minnesota:

Heart Disease	150.70
Cancer	106.40
Pneumonia	66.09
Nephritis	53.78
Tuberculosis (all forms)	53.60
Influenza	39.79
Diabetes	18.81

ARTHRITIS

In all cases of arthritis, teeth were removed until the time Dr. Schneider read a paper on arthritis dealing with the various types, causes, and treatment. Many teeth were sacrificed and many patients lost hope in what dentists could do for them, because they lost their teeth and were not benefited physically, due to the fact that neither the physician nor the dentist realized that in that particular condition, foci of infection did not play a part. Chronic arthritis, rheumatism of joints in middle and old age is due in many cases to infected teeth.

Patients who have a hypertrophic arthritis should not expect any relief by the extraction of teeth. Polyarticular types of arthritis are usually due to a focus of infection in a rheumatic form. The immediate removal of foci of infection is very questionable because you only liberate more bacteria into the blood stream and the patient as a rule gets worse. 40% of patients get better by the elimination of foci in the arthritic condition, including acute rheumatic fever.

Neuritis as a rule is due to a focus of infection.

It is questionable if gastric or duodenal

ulcers are the direct result of infected teeth or pyorrhea. The mouth should be completely cleansed, however, leaving no areas of acute inflammation in the mucous membranes, and for safety's sake, all questionable teeth should be removed.

Pyorrhea has caused the loss of appetite in many patients. This is thought to be due to the swallowing of food materials infected by pyorrhea organisms.

One of the most prominent gastroenterologists in the northwest is a firm believer in the removal of all foci of infection, especially in the mouth, in gastrointestinal disturbances.

1. Focal infection is a large aetiological factor in lesions of the uveal tract of the eye.

2. Dental and tonsillar infection comprise the greatest group causing this condition.

3. Pulpless teeth cause the most cases of infection within the dental tract.

4. Roentgen-ray findings in pulpless teeth indicate that the greatest number show periapical destruction.

5. Every available diagnostic means should be utilized in rendering a report of the dental condition in these cases.

6. Until there has been more investigation, all pulpless teeth and hopelessly diseased teeth should be removed in cases of uveal tract disease.

"There are many abnormal mouth conditions which are directly or indirectly caused by systemic diseases which are frequently seen by dentists before the patient or his physician knows of such a condition, and in which the circulating blood is so altered that examination of it will either determine or aid in the diagnosis or assist in determining the prognosis of the disease. The dentist has the right in such cases to order an examination of the blood and is distinctly obligated to do so. It is not

essential that the dentist or his assistant be skilled in the technique of making these examinations, but he should at least know the more important normal blood values and something of the significance of deviations from normal. The value of written, signed reports from recognized sources in the graver conditions hardly needs elaboration.

LEUKEMIA

One of the most suggestive symptoms which at once indicates the necessity of a blood examination, if none has been made, is haemorrhage from the gums or mucous membrane without obvious and direct irritation or injury. This condition is usually one of the earliest symptoms of the various leukemias, scurvy, the purpuras or severe aplastic anaemia, all grave conditions. From the dental as well as the general therapeutic standpoints, it is of the utmost importance that an accurate differential diagnosis of the condition be made.

Leukemias always terminate fatally, and the condition in the mouth, frequently at the onset of the disease, finds the patient seeking the services of the dentist first. In some cases of leukemia, the onset is rather dramatic, although careful inquiry will frequently bring out a longer history. The gingival troughs and spaces between the teeth are filled with a mixture of fresh and partially clotted blood. The lips may or may not be swollen. The tongue is usually heavily coated and sometimes sore. In many cases, the first sign may be an acute stomatitis with a swelling of the small lymphoid follicles of the gingivae. This is practically diagnostic of the condition. Leukemic infiltration of the gingival tissues may become so extensive that the tissues cover the teeth and protrude from the lips, and may be associated with necrosis and gangrene of the gums and mucosa. These necrotic

areas are easily confused with mucous patches of syphilis, and when these are present only to a moderate degree in the gingivae, while the condition is not typical clinically of Vincent's infection, it is commonly diagnosed and treated as such. Smears made from these areas reveal spirochetes and fusiform organisms in great numbers. Swelling and pain in the submaxillary glands frequently fits in with the general picture to further confuse the condition with Vincent's infection. All cases of Vincent's infection which prolonged, thorough treatment does not clear up, call for an examination of the blood. Acute gingival hypertrophy due to infectious processes and the proliferative gingivitis of pregnancy also must be included in the list for differential diagnosis. Leukemia is then quickly differentiated from the above named diseases by a diagnosis which is based on the qualitative differential leukocyte count alone. Although cases have been reported in which the total leukocyte count has remained within the normal limits, the count typically rises high in the thousands of cells per cubic millimeter. This should indicate the possibility of leukemia. However, the final diagnosis as to the true state of the condition is made from the state of immaturity of the particular series of leukocytes affected, and the disease is named after that series, i.e., lymphatic, myelogenous, monocyte leukemia, etc. Any blood smear with more than 15% of myelocytes should be carefully examined for promyelocytes, leukoblasts and myeloclasts.

Conditions in the mouth in leukemia frequently call for immediate systematic treatment. Extraction should be resorted to in cases of pain, only after every other method of alleviation has failed, and then not without a definite understanding with physician and near rela-

tives, regarding the possible sequelae. Many cases are apparently chronic or subacute, and following some minor procedure, such as the removal of teeth, become extremely acute and continue a short rapid course until death. Irritating preparations are to be avoided in all cases of leukemia with gingivitis, stomatitis and areas of ulceration and necrosis. The actual cautery, concentrated chromic acid are without avail, and are strongly condemned. An effective agent is hydrogen peroxide diluted in two or three parts of water. It tends to check bleeding, and washes clotted blood away and is inhibitory to the growth of the organism in the ulcerations. Spontaneous bleeding from the free gum margins is usually not controlled by any means for more than a few hours.

Spontaneous haemorrhage from the gum margins is also usually one of the earliest signs of the purpuras. In the early stages, ordinary cases of purpura do not present the symptoms of anaemia. The only other sign which may accompany the bleeding is the presence of numerous petechial haemorrhages in the soft palate and mucosa and not infrequently the tongue. After a time, if the haemorrhage goes on unchecked, signs of secondary anaemia will appear. Petechial haemorrhages on other parts of the body may or may not be present at the time the patient is first seen by the dentist. These should be inquired about. All local therapeutic measures to check the bleeding will usually fail. Intramuscular injection of whole blood is the most effective systemic means of checking haemorrhage in purpura haemorrhagica. After such treatment, the local bleeding ordinarily stops

HAEMOPHILIA

Haemophilia, which is an inherited tendency of males to bleed, is another systemic condition which is met with by dentists. This condition also is charac-

terized by a great tendency to bleed after minor operations such as the extraction of teeth and minor bruises. Here the history is of importance. The disease occurs only in males and is transmitted only by females, who can never have the disease. There has not been a proven case of haemophilia in females, although they frequently do have diseases with haemorrhagic diathesis. Of the females who can transmit the disease, 81.3% do so; 51.0% of the possible males have it. There are no morphologic blood changes due to the disease, but occasionally regenerative changes may be seen.

Until the process of clotting in haemophilia is understood, there can be no rational therapy. Local treatment is as a rule ineffective. The feeding of calcium lactate is not satisfactory. The only therapeutic measure worth while is transfusion. The coagulability of blood after transfusion reaches its maximum in six hours and in thirty-six hours has returned to its original condition.

In a known case of haemophilia, the best time for extraction is a few hours after a blood transfusion. Obtaining the history of the patient's tendency to bleed should be a routine procedure in every dental office before the removal of teeth. Those presenting a questionable history of bleeding should have a bleeding and clotting time determined, and if the findings from these two are greatly at variance from normal, an examination should be made of the character of the drawn blood.

Unfortunately, these conditions are more often discovered by the dentist after extraction, surgical pyorrhea treatments, etc., than before. Patients who bleed persistently after local methods have been without avail after extraction should have a blood examination made either to indicate or rule out the possibilities of jaundice, purpuras, haemophilia, leukemia, etc.

The clinical syndrome which accompanies acute haemorrhage resembles that seen in surgical shock and the treatment is the same.

The following factors are also to be considered: method of loss, amount, relation of lost portion to total blood of the patient, rapidity of loss, clinical state of the patient, and state of the blood-forming organs. The blood constitutes about one-thirteenth of the total body weight, and if one-third of the total blood volume is lost suddenly, death usually ensues, while if two-thirds is lost slowly, recovery is equally possible.

ANAEMIA

Ample evidence can be found among published case reports that infection in the dental area is a causative factor in the production of secondary anaemia as some cases show this to a marked degree, all periodontal infection should be eliminated in case of secondary anaemia, and until the status of pulpless teeth is determined, all teeth with pulp canal fillings are to be regarded as potential menaces and possible contributing factors in reducing general resistance, and hence are to be condemned. Areas of residual infection in edentulous mouths should be looked for, as they are easily overlooked.

The dental management of cases of pernicious anaemia presents several interesting phases. In the literature, it has been claimed by many authors that oral sepsis can be listed among the possible causes of the disease. Careful work has shown that such is not the case.

Another fact which recently was called to the attention of the dental profession and which can be emphasized again is the value to those who do a great deal of work with roentgen rays of having periodic examinations of the blood. Roentgen rays tend to suppress the activities of the bone marrow and this may be shown as a moderate anaemia accompanied by a

leukopenia or a lowered white cell count. That the common dental roentgen ray units either do not provide adequate protection, or that secondary radiation is absorbed to a great extent by the operator in continued small doses, is easily determined by carrying a coin fastened to a film with adhesive tape, for a week or two, and then developing the film. The extent of radiation absorbed by the dental roentgenographer doing an average amount of work is a great deal more than the average medical technician gets, because of greater precautions taken by the latter.

The search for a better understanding of the problem of focal infection has found a great many physicians, pathologists and dentists at work on the effects of infection from localized areas of the body on the blood. With the presence of infection in the dental area, it becomes important to decide whether such infection is of local or of general importance, and whether interference should be instituted as a prophylactic measure or as a curative one. It is here that the differences of opinion arise regarding the management of the pulpless tooth. The ultimate solution to this problem is prevention, but the time is probably far distant when this Utopia will be reached in spite of the splendid work that is being done in the field of preventive dentistry."

In the study of healthy individuals with infected teeth, it is shown that dental infection does produce a mild degree of anaemia. There was an average red cell count and haemoglobin value, which was lower in the group with dental infection.

In work done by Dr. Bryan at Iowa City along this same line, he took two groups of patients, examined the blood of both groups, removed the pulpless teeth of one group, took the blood counts for the same groups at a later period, and found that in the group for whom he had removed pulpless teeth, that the percent-

age increase of haemoglobin was over 10%.

OSTEOMYELITIS

Osteomyelitis is an inflammation of the bone usually due to either an infected tooth or as a result of traumatic injury. The patient complains of severe pain prior to the time of diagnosis from our x-ray plates. Due to the virulence and severity and uncertainty of this disease dentists should be very careful in making their diagnosis. The important thing is to get osteomyelitis before metastasis takes place in other bones of the body. Treatment consists of establishing drainage and applying heat.

Headaches are often due to unerupted third molars, as are ear symptoms and referred pains.

CANCER

Cancer is being made a subject of research and is being vigorously fought throughout the entire civilized world. Any part of the oral cavity may be a site of the cancerous lesion, but the lower lip and tongue seem to be the most frequent locations. While the aetiology of the dis-

case remains obscure, in spite of all the study that has been devoted to it, all authorities seem to agree that long continued irritation of the mucous membrane, resulting in an abrasion, is a strong contributing factor. Chemical irritation also seems to play a part, and the predisposition of smokers to cancer may be partly the result of tobacco poisoning.

In this great country of ours there are countless thousands of youths who need not only to develop a healthy body, but a pleasing and attractive personality. Have you ever stopped to realize that the saving of one tooth or the correction mechanically of a minor defect often changes the course of a human life? A minor defect, if neglected, might, and very often does, prevent many splendid boys and girls from making the grade in this great conflict of life. Instead of a pleasing or a charming personality, you have an individual who is either an asset or a liability on the community for life.

"After all, the most thrilling thing in the Universe is to live a human life—not part of it, not body alone, not mind alone, but the whole of it—body, mind and spirit."

Report of the Research Committee of the Canadian Dental Association

(Presented at the House of Delegates Meeting, Vancouver, July 1, 1938.)

IN MAKING this report for the Research Committee of the Canadian Dental Association, I intend to report on what has been done since the Committee was formed, as well as since I have become Chairman.

I am going to state briefly what has come under my notice, so as to guide what we may do in the future.

In the first committee, Dr. R. J. Reade was Chairman, Dr. Fred Conboy, Secretary, and I, treasurer. We three officers of the committee undertook some research in regard to the dental condition of the patients in the Whitby Ontario Hospital, and we drove to that institution a number of times through sleet and snow. I examined all of the x-rays of the

patients' mouths which we could get. Incidentally, we found that the mouths of the patients, from a radiographic standpoint, were in a deplorable condition. We tried to outline a course of treatment and were very willingly assisted by the doctor in charge, the radiologist and by the dentist, but unfortunately, for the success of the research, the government of Ontario was changed and the officers with whom we had to deal were changed or done away with, and any benefits which might have accrued to the patients from our efforts must necessarily be regarded as doubtful.

Your committee also established some other pieces of research, one being in collaboration with the Orthodontic Society of Toronto, with the object of finding out what effect Orthodontia had on the nerves of young patients, if any. We also, through the efforts of Dr. Conboy, received a donation of \$500 from Mr. Shaw of Peterboro (who is connected with the Ovaltine Company), to be used in any way the committee saw fit. That money was used to carry on research work by Dr. Elmer C. Purdy, under Dr. Arthur W. Ham, arranged through the Faculty of Dentistry of the University of Toronto, a statement of which I am attaching to this report. Dr. Purdy is a graduate in dentistry of 1933, and is registered to proceed to the degree of Bachelor of Science in Dentistry with this research work as the basis of his major subject and thesis. Dr. Ham, a graduate in medicine, is Associate Professor of Anatomy in the Faculty of Medicine of the University.

Unfortunately, in February 1936, Dr. Reade, who was Chairman of the Committee, died, and this greatly interfered with the activities of the committee. Nothing new has been inaugurated up to the present time, although Dr. Purdy has been, to a certain extent, carrying on.

When I was appointed Chairman of the committee with the power to add to the numbers of the committee, I informed you that I believed it was in the best interests of dentistry and humanity to add young men of outstanding ability who are known to take an interest in research, and who, incidentally, would very shortly take the place of the older members. You were good enough to give me a free hand; therefore, I have added to the committee the following men:

Drs. George A. Morgan, G. V. Fisk, Charles H. M. Williams, T. L. Marsh, and J. Kruetzer, and I hope these vigorous young men will work with the other members of the committee for the good of dentistry and humanity. These five, with the former members, namely, Drs. Ellis, Husband, Conboy and McDonagh, constitute the executive of your Research Committee. We hope and expect to work, as far as possible, with the Canadian Research Foundation and any other organization which is for the good of research and dentistry.

Besides the report of Dr. Purdy, I am also attaching Dr. Ham's report, under whom Dr. Purdy has been working, all of which is respectively submitted for your approval.

ANDREW J. McDONAGH, *Chairman*,
Toronto, Ontario.

Even if vast tracts of our moorlands and downs could be cultivated for growing carrots for the daily consumption of a well-trained nation, I doubt whether caries would be less rife. A carrot a day might keep the dentist away; but who likes carrots that much!—Edward Samson, L.D.S.R.C.S. Eng., F.C.S.—British Dental Journal.

Report of Public Dental Health Committee of the Canadian Dental Association

(Presented at the House of Delegates Meeting, Vancouver, July 2, 1938)

I HEREWITH submit my report as Chairman of the Public Dental Health Committee of the Canadian Dental Association, and with it copies of the reports received from the representative members of this Committee of seven of the provinces. Two of the provinces did not reply to our request.

Public Dental Health efforts have greatly increased throughout Canada during the last few years. This is as it should be. The profession of dentistry, or more particularly, the individual dentist, is displaying a much more interested attitude towards this phase of his professional activities. My opinion is that this will continue to increase as the ranks of the practising dentists are filled with younger men and more recent graduates.

While the course in Public Dental Health given in the Dental Faculties of the Universities is as yet very limited, I believe that the Deans of the Universities are aware of its importance, and are endeavouring each year to increase the number of hours devoted to it. This is very essential if we desire to bring dentistry up to the standard required of it as a profession. We cannot any longer, as dentists, be content with the ordinary operative procedures that take place in our offices. We must obtain from our patient a true picture of his general health, and more than that, we must arouse an interest in him in Mouth Health—his own, his family's, and those in whom he is interested.

The study of Public Dental Health will bring about this desired change in the individual dentist more quickly than any

other branch of study. It will broaden his interest, and he will no longer be solely concerned with his own career and the perfection of his technique. It will widen the scope of his thinking to include the entire community, and create in him a new interest in general health and welfare problems in which he formerly felt he had no part.

For this reason I think it would be well for the Canadian Dental Association Executive, as a group, to extend its own interests in Public Dental Health, in order that it might advance the standing of its members, in a truly professional way, in the estimation of other professions, and the public at large.

At the present time, there are not active Public Dental Health Committees in every province of Canada. This is not wholly due to a lack of interest, but in many cases it is a problem of distance, as in some of the provinces which cover a large area, containing perhaps but one or two cities, the committee is often constituted to include representatives of every section of that province, and it would be very difficult to have frequent meetings of such a committee as it would entail loss of time taken up in travelling. Where these conditions prevail, I have suggested that the Committee be constituted, entirely, of men located in one city or town, say for two or three years, then changing the location, appointing dentists from another part of the province to take up the activity for the next two or three years. This condition is particularly applicable to the province of Saskatchewan, where the three main cities, Moose Jaw, Regina

and Saskatoon, are widely separated. In some of the other provinces, the same condition prevails.

As Field Secretary of a *lay* Public Dental Health organization, I have for the last five years made it a point, on my cross Canada trips, to contact once each year the Public Dental Health Committee in each province, bringing to them for consideration a knowledge of what is being done in the other provinces, and endeavouring to inspire them to action. While this is largely a Canadian Dental Association task, it has been willingly done by the Field Secretary of the Canadian Dental Hygiene Council and the effort has been greatly appreciated by the various Committees. It has not yet fully brought about the desired results, and I again repeat that it is advisable that the Canadian Dental Association, as a national body, should give some consideration to the problem of Public Dental Health, and should give some assistance to the various provinces to bring about the action which we are sure will be beneficial to us all and to the public.

In the province of Nova Scotia, an active committee has assisted in carrying out, during the past year, an intensive Mouth Health Campaign, in co-operation with the Provincial Department of Health and the Canadian Dental Hygiene Council. This co-operative effort produced a very effective piece of Public Dental Health work, and I am sure tangible results will develop.

In New Brunswick some work has been accomplished by the Public Dental Health Committee during the past two years. A dental officer has been appointed to the Mental Hospital, and some consideration is being given to a properly staffed dental clinic in the Tuberculosis Hospital. School dental clinics are conducted in several of the cities and towns.

In Prince Edward Island, while there Committee, a program has been continu-

ously carried on through the Department of Health under Miss Wilson, Director of Public Health Nursing, of the Provincial Department of Health, assisted by the dentists. In Prince Edward Island this work can best be carried on in this way because the number of dentists is relatively few. They are located in various parts of the province and it would be difficult to call a group of dentists together frequently.

In the province of Quebec during the past year the government has been giving consideration to the establishment of a Dental Division in their Department of Health. No report has been received from the member of this committee in that province to show what progress has been made. From my own knowledge I can state that Protestant school dental clinics have been established under the auspices of a special committee of Welfare Workers, working through the Junior Red Cross in the City of Montreal. The Department of Health of the City of Montreal is now giving consideration to the establishment of an up-to-date plan for Dental Clinics to be carried on throughout the entire city. Two representatives visited Toronto during this past month to make a survey of their clinics.

In Ontario a very active Public Dental Health Committee has carried on an extensive educational program during the past two years, and a Public Dental Health Educational Campaign has been conducted, covering a large portion of the province. Many other activities of this Committee are detailed in the report appended for Ontario. This Committee is to be congratulated on the results it has achieved. Certainly Ontario has by far the largest number of dentists and for that reason more is to be expected. It can be said to their credit that a great deal is being done.

Manitoba is another province which

has a very strong and very active Public Dental Health Committee. The individual members devote a great deal of time to the study of Public Dental Health, and through moving pictures displayed in theatres, a radio program and addresses presented to public gatherings and to school teachers, have accomplished much to advance the standing of the profession in that province.

In Saskatchewan the Committee, as such, has not been actively engaged in any definite program, but individual members of the profession who are interested in Public Dental Health have constantly been on the alert to make sure that the profession of dentistry has been represented at various meetings and places where general public health was being discussed.

In Alberta the activities of the Committee have been limited by conditions existing within that province, and by the distance between the cities where groups of dentists are located. However, I believe that during this coming year an active Public Dental Health Committee will be formed and eventually a program evolved.

In British Columbia public dental health activities have been actively carried on, thanks to the efforts of some individual members of the profession, and the keen interest in public dental health of the Provincial Department of Health, especially the Hon. Dr. Young, Chief Medical Officer of the province. The chairman of this Committee has intimated that during the present year an active committee will be organized to take

charge of this work, and I believe their efforts will extend the work that is already being done.

Some mention must be made in this report of the travelling dental clinics conducted, in five provinces, at the present time. While these are providing dental treatment for school children, they are being conducted in such a way that they are purely educational clinics, for we are convinced that a demonstration of the needs and the benefits derived from the correction of diseased conditions has a more educational value than numerous addresses or lectures on this subject. Because of that, as a purely educational feature, these clinics are being conducted in remote and sparsely settled areas where dental services are not available. During the past year these services have been carried to probably 30,000 children in the Dominion, to whom dental services were positively not available.

A detailed report of the clinics conducted in the provinces of Manitoba, Saskatchewan, Alberta, and British Columbia, will give you an idea of their scope, which will amaze you.

In closing, I would add that a great deal of the Public Dental Health work throughout the Dominion is carried on with the co-operation of the Canadian Dental Hygiene Council, a lay public health organization financed by the Federal Government and the Canadian Life Insurance Officers Association. Because of that, I am appending hereto the last Annual Report of the Council.

(Sgd.) HARRY S. THOMSON, *Chairman.*
Toronto, Ontario.

It is commonly supposed that honey is gathered. It is not. What the flowers are visited for is nectar, and this the bees turn into honey, just as a cow turns grass into milk.

Honey, unlike ordinary sugar, requires no digestion. It is ready for immediate absorption, and can enter the blood-stream at once. It is the energy food par excellence.—D. M. Cuthbertson in "Armchair Science."

Report of Legislative Committee of the Canadian Dental Association

(Presented at House of Delegates Meeting, Vancouver, July 2, 1938)

THE present committee, because of a number of reasons with which you are familiar, did not take over its duties until a few months ago. The problems outlined below have been investigated and are reported on.

"Mail Order" Dentures—A number of complaints on this practice have been received from widely separated parts of Canada. While some of these complaints are specific, many do not give the required information necessary to take action. When presenting a complaint on this practice to the responsible person, or department, we must be prepared to give quite specific information. Our members know that it is not possible for a lay person to take an impression of his own mouth, send it to a laboratory and receive a satisfactory denture in return. But when dealing with a government department, which has not our specialized knowledge and which must be prepared to defend its position on the floor of the House, definite proof of the fraudulent nature of the practice must be supplied. The usual complaint received is one in which the writer asks that something be done to stop the flood of these mail order dentures into his part of the country. The first question we ask is from where are the dentures coming? Eventually we find that the offender may be a laboratory in, say, Montreal or Chicago. If they come from a Canadian city, the procedure is to write the Registrar of that province, since such a practice is an infringement upon our provincial dental laws and any registrar so far communicated with has stated his willingness to assist in stamping out the practice. The information he requires

is generally a marked copy of the publication which carries the advertisement. In the case of those dentures shipped from the U.S., the procedure is quite different. Here it is much better to work through Ottawa.

The most persistent offender at the present time seems to be the United States Dental Company, located in Chicago. Some two years ago, the Legislative Committee in office at that time did considerable work on this and were eventually able to have the Attorney-General give a ruling that the practice was fraudulent. On the strength of this ruling, they were able to obtain a ruling from the Postmaster-General which refused the Canadian mails to the laboratory which was then the offender. While the present house has a different name, they appear to be well advised on the Canadian regulations, and their notices bear a special imprint asking Canadian customers to give the name of their nearest railway express office, rather than post office. Your committee thought that it would probably be a waste of time to ask the express companies to refuse these shipments, and that the most effective way to stop entrance into Canada would be to obtain a general ruling which would prevent entrance at a post office, express office, or any point where customs examination was carried out. The following steps were taken:

1. Through the good offices of some of our individual members, we were able to have certain Canadian periodicals which carried these advertisements, refuse them in future.

2. The Minister of National Revenue

was written to, since it was certainly not in the interests of his Department to see this waste of Canadian funds. While he promised his willingness to assist in any way possible, he pointed out that the question of prohibiting entrance was under the authority of the Minister of Finance.

3. The Postmaster-General was asked to renew his ruling and refuse entrance to this new mail order house. He was quite willing to do this on specific evidence that this company was using the mails. While a number of inquiries were sent out to find whether it was using the mails, we have not yet been able to obtain any evidence that it was.

4. We wrote the Customs Office in Ottawa at the same time, and were advised that while they were willing to co-operate, their duty was purely the administration of the customs law, and advised us as to what action we should take.

5. The next step was to ask the Minister of Finance to place "mail order dentures" on Schedule C,—that is, articles prohibited entrance to Canada. While our letter reached him during the rush of budget week, he at once sent a courteous reply that he would be glad to carry out a thorough investigation of our request.

We are very hopeful that with the backing of the ruling already given by the Attorney-General, and the work your committee has been able to do and the contacts they have made, that we will be successful in obtaining an absolute prohibition of the entrance of these articles into Canada.

The June issue of our Journal carries a notice in which we asked for full information on these dentures entering any part of Canada. Please remember that we require: 1. The name and address of the company supplying the dentures, and, if possible, a marked copy of a periodical with one of its advertisements. 2. Place of entrance of these dentures and

whether they come by mail or express.

3. We would be very happy also to secure evidence of fraud. A properly attested affidavit stating that such dentures were useless, failure of the company to live up to its claim of refunding money to a dissatisfied patient, etc. This would be of great value in backing up our claims at Ottawa.

Tariff, Sales and Excise Taxes—While your committee did not have the time to take up any of these matters there are doubtless many problems which require investigation. One recent letter received draws our attention to the fact that while the Federal Health Department teaches the importance of mouth hygiene, the Tax Department places the heavy surcharge of a 10% excise tax and an 8% sales tax on preparations used in Oral Prophylaxis. Tax adjustments are at best a long procedure, requiring much time and correspondence. We do not feel that it is the wish of our profession to ask for any special privileges, but that our problems should be understood by the various Federal Departments.

Dental Services in Penitentiaries—Our attention was drawn to a circular issued by the Superintendent of Penitentiaries in 1932, dealing with the dental treatment for inmates. A number of statements made in this circular did not seem to us to be either in the best interests of the patients or of our profession. We drew the attention of this official to the statements in question and asked if these regulations were still in force, pointing out at the same time the reasons why we felt that they were in error. While we received notification some two months ago that these points were under consideration, no final report has so far been received, although a ruling was asked for in time for this meeting.

Alcohol—It was only possible in this to get the investigation under way. We started out under the initial handicap that

the original complaint was not clearly stated and we were in doubt as to just what we were asked to investigate. The complaint apparently referred to the difference in status between the medical and dental professions in the purchase of rubbing alcohol. The physician, or surgeon, on completion of the necessary forms, is permitted to purchase rubbing alcohol direct from a government vendor, while the dentist can only obtain it from the retail druggist and at a higher price. We were not clear just why the dentist should wish to purchase rubbing alcohol, as such, and that the disability complained of really went back to the high price paid for alcohol for such necessary uses as sterilizing, dehydrating, etc. The problem becomes more involved because both Federal and provincial regulations enter in.

Your committee was surprised to note that apparently no provision is made in the Act for the use of ethyl alcohol as a drug, free from the high excise tax, for such purposes as sterilizing, etc. The amount used in an average dental practice per year is small and it would seem that some special provision might be made to permit the dentist to purchase a reasonable, stated quantity per year, which, while sufficient to meet his proper requirements, would not, at the same time, be large enough to permit of its being diverted to illegal use. A large number of special denatured alcohols are prepared, under licence, for use in the arts and industry. The formula of one or more of these is such that they might be used with satisfaction and safety in dentistry for our special requirements and at a very much more reasonable figure than pure alcohol. However, this is not feasible, since the use of each of these special denatured alcohols for any purpose other than that for which they are prepared constitutes an infraction of the

law. We would recommend that the special requirements of our profession be brought to the attention of the Department concerned with a view to permitting the dentist to purchase a small, stated quantity per year of ethyl alcohol, or that a special denatured alcohol be made up for the use of the profession. Because of the relatively small amount of alcohol required, the former would seem to be the more logical solution.

Your committee wishes to emphasize the need in our Association for a well constituted and active Legislative Committee. There are many things which urgently require attention. We have been impressed with the lack of knowledge shown by the various Federal Departments of our special needs, but feel that there is a willingness to co-operate with us if we can make our point of view understood. This committee is one which is very closely associated with the work of the Executive, and it is not always easy in the case of some problems to decide who should carry out the investigation. We would recommend therefore:

1. That provision be made for a very close-working relationship between the Legislative Committee and the Executive.

2. That this committee particularly requires continuity of action from year to year so that a definite policy can be formulated and then carried out. This committee should not be under the handicap of having to start from scratch every two years, since many of the problems with which it will deal are more or less continuous in nature.

3. This committee should have close contact with at least some of the Federal Departments but the personnel is more important than the locale of the committee.

(Sgd.) J. STANLEY BAGNALL.
A. W. FAULKNER.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office,"
314 Somerset Building, Winnipeg.

Successful Dentists Are Always Good Business Men

SO CLEVERLY concealed as to be discoverable only by critical study lies the fact that successful dentists are, first, last and all the time, good business men. Sound business principles and practices motivate everything from the secretary's voice and manner over the 'phone or in the reception room to the moment when the door closes behind the departing patient with the bill paid or payment assured.

These men know that comfort, luxury and security must come out of the profit from their earnings. As business men they know that that profit cannot be sufficient in amount or duration unless their service is recognized by many of the public as not only satisfactory but profitable.

They obtained their business sense in different ways—but certainly never in dental college. It is to the durability of their business sense, and not to their professional knowledge or technical skill, that they owe their success.

Their offices are attractive, though not necessarily luxurious or extravagant as to cost. Their personnel is intelligent, courteous and so efficient that the offices seem to run themselves. The dentists have a professional conception of dentistry: that decay and pyorrhea are symptoms of disease affecting the whole body; that they are also causes of disease in other parts of the body; that unless the causes are found and corrected, the disease will break out elsewhere in

some more important and serious way; that while their repair service is important, their preventive service is very much more important; that regular service, at intervals suited to the case, will be an economy rather than an expense.

These men have learned to talk in an understanding way to patients and are outstanding teachers of health. They are conscientious and competent technicians. They are the men who carry dentistry forward and earn for it what public esteem it has. These are the two characteristics which, when joined to a reasonably attractive personality and business sense, never fail to build and hold a practice.

Their fees are never competitive nor are they low in the usual sense of the term. They are based on a knowledge of the cost of their service and range from two to three times cost, sometimes more. The higher fees were not possible to them until they became well known and esteemed, but with the growth of their reputation these fees have not proved a hindrance, because excellent value has been given for every dollar, and their service has been demonstrably economical and satisfactory to patients.

These dentists hold their practices until late in life, and, while they are not the only ones who do, those who hold their practices on any other basis are so few as to be numerically negligible.—*George Wood Clapp, D.D.S., in Dental News, May, 1938.*

*From a Treatise on Dental Office Practice **

By W. N. MILLER, Flint, Michigan

POLICY CARD GIVEN TO ALL NEW PATIENTS

WE HOPE THAT THIS CARD WILL EXPLAIN THE POLICY OF OUR OFFICE SO THAT WE CAN AVOID ANY UNPLEASANT MISUNDERSTANDINGS.

As we serve you with the science and art of dentistry, you expect certain professional standards of us. When it comes to establishing the fee and arranging its payment, we leave the professional field and enter business. We also want to follow good business standards.

We believe that our patients should expect from us . . .

1. A degree of professional skill and ability above the average.
2. The integrity to perform our service to the best of our knowledge.
3. A studious attitude toward current dental literature.
4. Regular attendance at Dental Society meetings where advances in our profession first appear.
5. A willingness to discuss the findings of our carefully made diagnosis and to establish a definite estimate of the fee involved.

In return for the fulfillment of these obligations we expect from the patient . . .

1. Thorough co-operation in arranging and keeping appointments.
2. The best possible effort to follow our instructions on home care of the mouth.
3. A definite arrangement for payment of the fee.

The following methods are suggested:

- a. Initial deposit and payment of monthly statements.
- b. Weekly, bi-weekly or monthly payments. (Past due balances to bear six per cent interest.)
- c. Financing through regular banks or commercial companies.

The secretary has complete charge of collecting accounts and adjusting appointments. Consulting her about these matters will avoid interrupting Dr. Miller's care of another patient.

THE FOLLOWING APPEARS ON REVERSE SIDE OF MONTHLY STATEMENT:

Everything that feeds your body and almost everything that poisons you enters through your mouth.

You will never regret the money you spend for oral health if you learn to use the proper home care.

Periodic professional care is eventual economy. Start the children early to avoid the misfortunes you have had.

Many adults are wearing false faces because no care was taken of the teeth and jaws during the formative period.

Our professional policy is to serve every patient to the best of our ability and to keep abreast of the latest knowledge so that the standard of our advice and service is constantly improving.

Our business policy follows: Fees are based upon the skill and time required for the operation or advice and not primarily on the cost of material used. If there is anything not understood regarding either the fee or the services you will confer a favour by asking for an explanation, which will be cheerfully given. Payment will be expected promptly upon presentation of each monthly statement unless other arrangement has been agreed to before services have been rendered. Statements are issued at the end of each month for the amount due to date.

A partial payment plan will be arranged for those desiring it.

*Presented before the Academy of Dentistry at Toronto, March 29, 1938.

The Forum

• DENTAL HEALTH EDUCATION

By Edward Samson, L.D.S.R.C.S. Eng., F.C.S.,
Bournemouth, England.

(Excerpt from *British Dental Journal*, Oct. 15, 1937)

IF DENTAL propaganda is to be of any value and justify the money and time spent upon furthering its objects, it must deal with facts as we know them and not hold out hopes built upon our half-proved theories. The knowledge that it dispenses should be simple, honest and easily absorbed. It is not the right principle of such publicity that it should impart an elementary knowledge of dentistry, nor is there anything to be gained by teaching the people dental anatomy and pathology. Rather will it frustrate our intentions. The one and primary aim of any widespread movement in which the public is to co-operate is to instil in it a fear for its own safety. This may sound fundamentally drastic, but it is psychologically sound. A study of mass-psychology and national reactions around us will demonstrate this fact more forcibly.

Thus it is with the protection of the people's dental health. We need not scare them with highly coloured and morbid pictures of putrescent pulps, or with vivid diagrams of throbbing abscesses. Neither need they understand the aetiology and pathology of pyorrhea in order to know how to avoid it. Equally unnecessary is it to expound the five hundred causes of caries before asking a man to get his teeth filled. Sufficient will it be to publish the alarming truth saying, that while we dentists cannot prevent these evils, we can at least ameliorate their effects, and even delay their onset if given sufficient opportunity. Arms cannot avoid a war, nor visits to the dentist avoid dental disease, but both will

postpone the occurrence of the dreaded event. It is our duty to make the one as feared as the other.

If England is ever to have a council of dental health education, I seriously submit these views for its consideration. Further, I would like here to offer a few examples of statements made by authorities whose words might be well employed as a basis for an effective policy of dental propaganda.

"The late Sir William Osler made the remarkable statement that if he were asked to say whether more physical deterioration was produced by alcohol or by defective teeth he would unhesitatingly say 'defective teeth'."

That is grand news for those who favor the bottle, but it is alarming news for the millions of people with septic mouths. There is no reason why our new propaganda should not be made as dramatic as that which has so long been provided by teetotalers and prohibitionists. Let us steal their thunder and show how homes and health are wrecked by bad teeth, and how pyorrheic gums can wreck domestic bliss and even rob the hearth of its breadwinner. I am sure Mr. Fish would agree that one of his streptococcal showers from the gingival margin is far more dangerous in its auto-intoxication than the intoxication from the whiskey bottle. Let us tell people, in simple terms, of these showers—then let us tell them that it never rains but what it pours. Never mind the pathology!—all we need to do is to demonstrate the results. Sir William Osler's statement could be used to the fullest extent of effective publicity.

Then we could use the statistics of the Chief Medical Officer. He tells us that "each year the number of children found

to require treatment has been increasing; in 1932 the number of children inspected was 3,302,338. Of this number, as many as 2,285,644 required treatment." Public imagination is stirred by the number of children killed on the roads. It is terrible and we are justly outraged. But there is also scope for exciting the feelings of our parents by stating the truth in regard to dental disease. I would visualize on our buses, on our placards and everywhere where the eye could see it—"In every 3,000,000 children, 2,000,000 have diseased mouths." Need we say more? The simplest mind knows that the answer to this is a visit to the dentist.

There are innumerable other facts which could be advertised with great effect. The number of recruits refused to the Army on account of their dental condition; the dental requirements of an applicant to the Navy or other worthwhile institutions; the weeks of work lost annually due to dental disability; all these things are news, and very bad news, which makes them very good propaganda if properly handled. If all the money that is spent on printing pamphlets for circulation among schools, clinics, and health centres were spent in one day on a startling piece of dental news it might prove a fruitful experiment. Suppose that an article on dental health appeared in the daily press headed in large type with the announcement: "Ninety per cent. of the population afflicted by incurable disease"—it would be dramatic but true. Underneath could be a simple explanation of what dentistry can do for the incurable disease, with little else. The only way to interest a world, saturated with startling news every day, is to startle it more.

Propaganda, to reach its ends must state the things we know and the things we can do in terms that can be readily understood. It is of far greater value to emphasize one certain evil effect of dental

disease than to paint endless visions of a dental paradise that might be reached if caries were under control and the people cared anything about it.

The best remembered dental advertisement is "Four out of five have pyorrhea." Best remembered for the reasons that it is a bald statement of an unpleasant fact. And that should be the essence of our efforts in a newer and more forceful national campaign of dental health education.

• EFFECTS OF DAILY USE OF FLAVOURED SODIUM PERBORATE AS A DENTIFRICE FOR A SIX MONTHS' PERIOD

By Charles F. Bodecker, D.D.S.; F.A.C.D. and
Lester R. Cahn, D.D.S.

Laboratories of Oral Histology and Oral Pathology,
Columbia University, New York, N.Y.

(Summary and Conclusions of paper in *Journal of Dental Research*, June, 1938)

SUMMARY

THE purpose of the investigation was to determine whether the prolonged use of flavoured sodium perborate caused chemical burns, hairy tongue or edematous conditions of the oral mucosa. The experiment was conducted on 100 students, age range 19 to 30 years, who agreed to use sodium perborate faithfully, twice daily as a dentifrice for 6 months. The teeth were brushed and the gum massaged for a period of 1 minute as timed by a watch. All mouths were photographed in colours in order to have permanent evidence of any subsequent pathological changes; gingival biopsies of 20 and blood smears of 37 students were made. This elaborate set-up was arranged in the expectation that pathological conditions would be observed as a result of the use of sodium perborate. Observations showed 4 students with lesions, suggestive of tooth brush trauma, which did not reappear when the use of sodium perborate was resumed. No pathological conditions were noted which could be defined as chemical burns of the oral mucosa, hairy tongue or edema of

the mucosa. This work is being continued.

CONCLUSION

Flavoured sodium perborate was not harmful to the oral mucosa of the experimental group when used as a dentifrice twice a day for an extended period.

• PRICES IN SOVIET UNION AND ENGLAND

THE following prices are partly derived from the decrees fixing the prices of food stuffs and partly from prices actually collected by independent observers in shops in Moscow and other towns.

	Russia	London
Wheat bread per quartern loaf \$	.52	.16-.18
Butter per pound	1.68	\$.32
Sugar per pound	.28	.07
Tea per pound	8.16	.56
Beef (average cut) per pound	.78	.28
A man's ready-made suit of woollen cloth, poor quality	83.30	19.50
A pair of men's shoes, leather	29.40	4.90
A man's shirt, calico	7.20	2.50

It is also instructive to regard these prices in relation to the average Soviet wage converted into Canadian money. The equivalent of R. 3,000 at the official rate of exchange is about \$551.20. Imagine an English working man earning about \$10.30 a week being asked to pay the above prices. It must also be remembered that the quality of the Russian goods is much inferior to that of English goods at the prices quoted. For instance the man's suit would in material, cut and finish correspond more to the \$7.20 reach-me-down in a poor part of East London than to the \$20.00 ready-made sold by the mass-production tailors.—L. E. Hubbard, *London, May, 1938 in Pacific Affairs.*

• WHERE ARE THE FOCI OF YESTERDAY?

OF INTEREST to the 3,000 physicians at the 22nd annual session of the American College of Physicians in New York's Waldorf-Astoria Hotel was a paper entitled "Where Are the Foci of

Yesterday?" The following is a summary of the paper:

"Foci" of infection are places where germs inhabit the body. From these regions bacteria may seep into the blood stream, float to organs such as the heart and kidneys, and cause internal diseases. About 25 years ago this knowledge led to the theory of focal infection, and some physicians began to think that most internal ailments were due to germs from another part of the body. To eliminate dangerous foci, dentists worked overtime pulling infected teeth and surgeons removed thousands of bacteria-ridden tonsils.

Drs. Russell L. Cecil and D. Murray Angevine of the Cornell University Medical College, New York, read a paper dedicated to the question: "Where are the foci of yesterday?" They threw a cold, statistical eye on one of the most popular focal-infection diseases—rheumatic arthritis. In 200 cases—all suffering from the typical chronic inflammation of the joints—70 per cent had no infections that could be blamed for their ailment. Ninety-two patients had their tonsils removed to improve their condition; 86 of them weren't helped at all. Of 50 cases that had all or some of their teeth removed, 47 were as sick as ever.

Then the Cornell researchers tested animals. Using an arthritis-producing streptococcus germ, they infected 100 rabbits in the gums and other parts of the body. The bacteria didn't have an easy time travelling from tissues to blood stream. Only nine rabbits got arthritis. Had the germs been injected directly into their blood, 90 animals would have had the disease.

As a result of such dismal figures, Drs. Cecil and Angevine tersely cautioned physicians to remember that the theory of focal infection was still only a theory.—*From NEWSWEEK, April 18, 1938. (A.D.A. News Release Service.)*

• **BACTERIOLOGICAL SURVEY OF
TELEPHONE INSTRUMENTS UNDER
VARIOUS CONDITIONS OF USE**

By C. B. COULTER and F. M. STONE;
Am. Jour. Publ. Hlth., 1937, 27, 993.

CULTURES were made monthly from December, 1934, to June, 1936, from 246 instruments in New York City located in office buildings, department stores, small shops, hospital operation rooms, subway stations and railway terminals, with locations in corridors, office rooms and public booths, where calls ranged from a few to approximately 6,300 per month.

The great majority of bacteria isolated were non-pathogenic; no true diphtheria bacilli were found; pneumococci were

found less frequently than either streptococci and staphylococci and these appeared only in the winter and spring months. The sanitary significance of both streptococci and pneumococci rests on their respective group identification, which was accomplished in relatively few instances.

The authors conclude that "if droplet nuclei should prove to be the most important factor in the spread of infection, it would be necessary to regard the air within a telephone booth, for example, as a greater source of danger than the instrument itself, and we should have to believe that the telephone and its appurtenances have but a small share in the spread of disease."—*The National Health Review*.



**"No, no, Mrs. Smythe! It's see your DENTIST
twice a YEAR, clean your TEETH twice a DAY!"**

*Reprinted by special permission of The Saturday Evening Post.
Copyright, 1938, by The Curtis Publishing Company.*



PRINCE EDWARD ISLAND



W. T. Waye, Charlottetown

SASKATCHEWAN



F. C. Hurwood, Moose Jaw

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto

NOVA SCOTIA



A. W. Faulkner, Halifax

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgecombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

Further Problems for Consideration

Within recent times even the most casual observer must have been impressed with the marked tendency to present in pictorial form rather than by the printed page, the news, the story, and in fact, every article of public interest. If humour can be worked into the picture so much the better. All of this has its good points but opens up a serious problem in so far as dentistry is concerned. We observe with much apprehension the picture of the interior of a dental office, the cartoon illustrating some dental problem, the caricature of some phase of dental life, all depicting the so-called terror supposed to be endured by the patient during dental operations.

There is nothing to be compared with fear for keeping people away from the office of the dental practitioner. In the interest of public health everything possible should be done to allay this fear and to inform the public of the advance made within recent years by dental science, in the control of pain. When one picks up a popular magazine or newspaper and finds a picture of a dental patient twisting the limbs into all sorts of contortions while "having an impacted wisdom tooth chiselled out," as the title states, one becomes alarmed at the tremendous amount of harm such an unwise editorial policy can cause.

The time has come when concerted action should be taken, not only by

the dental profession, but by the medical profession as well, to try and curb this degenerate tendency, in so far as the publicizing by the public press of certain phases of our professions is concerned.

Immediately following this editorial will be found under "Correspondence" a letter which was sent to the editor of "Life" magazine protesting against certain pictures appearing in that publication. The odd letter may not accomplish much, but if the four thousand dentists of Canada, and the sixty thousand dentists of the United States would write in protest to any editor stooping to publish this sort of objectionable picture or cartoon, the impact would, at least, leave its impression. If even a fair percentage of our profession would write a letter of protest on all such occasions, it would be of inestimable value, not only to our profession, but particularly to the public whom we serve. Let us hope that some organized move may be speedily made to deal with this deplorable tendency.

Another somewhat similar problem presents itself in regard to radio broadcasting. How often do we hear a remark or story about some phase of dental practice which is decidedly detrimental to the health life of the nation! When such is heard let us sit down and write at once direct to the sponsor of the program, calling attention to this objectionable feature of the broadcast. Much could be accomplished by such a united effort.

In the letter already referred to, it states that \$850,000,000 a year will be required to provide the lowest income groups alone, in the United States, with reasonable health service. The report of the National Health Conference, held in Washington in July, further states that the technical committee of the Conference recommends that \$10 per year be provided for each individual who is self-supporting, but unable to finance his or her own medical care, to cover free medical service, hospitalization, and *emergency dentistry*; this was recommended to be part of the \$850,000,000 program. Just how much of the \$10 would find its way into dental channels, after medical service and hospitalization is provided, is a matter of no small concern. This is particularly true when we realize that it would cost at least \$10 per individual to keep the mouths of these people in a healthy condition, apart from medical care and hospitalization. Apparently, it is not the intention to keep the mouths in such a condition, but to deal only with "emergency dentistry," meaning probably, the extraction of teeth.

You may say that this is a United States problem and does not affect Canada, but no plan of this nature can be carried out in our great sister Republic without having the gravest repercussion in our Dominion. This is another problem demanding the energies and thought of the dentists of Canada and presents further concrete evidence why our National Association should receive more adequate support, so that our forces can be mobilized quickly for just such emergencies. Such problems touch the interest, the life, and the pocket of every dentist in Canada, and should be given our united attention and whole-hearted support.

CORRESPONDENCE

August 2, 1938.

To the Editor of "Life" Magazine,
New York City:

Upon the suggestion of President Roosevelt, three hundred leaders in the field of medicine, labour, farm, social work, and civic affairs, in your country, met in Washington, July 18-20, to discuss the needs of the people for preventive and curative service in illness.

The technical committee estimated that the total annual cost for reasonable health service for the lowest income groups alone, would reach up to \$850,000,000 a year, if the need is to be met.

That your country is facing a very serious public health problem is unquestionably true. It is equally true of Canada.

Those of us who have given careful consideration to this problem know that a healthy mouth is essential to good health, that prevention of serious dental defects will greatly reduce the catastrophic and other serious systemic conditions in later life. Furthermore if this problem is to be successfully attacked then the only solution is in a long term prevention program for the children of our land. To accomplish this it is imperative that every effort possible be made to create in the mind of the child, as well as the adults, a confidence in the members of the healing professions.

At the present time, more people are kept away from the dental offices of this land by fear than for any other reason, and considering the seriousness of this problem we would expect a magazine of such outstanding prominence as "Life" to give hearty support to the efforts being put forth to overcome this problem of fear. On the contrary there appeared a series of pictures on page sixty-eight of the July 11 edition of "Life," which will do more harm to the health of the nation by en-

couraging people to shun dental offices, than can be overcome by publicity costing very many thousands of dollars.

The heading of these pictures states "Dentists say that people do not actually suffer much pain in the chair, (I know differently and so do you)." A more correct statement would be, "People say that they suffer pain in the dental chair, (I know differently and so do you)." If this statement had been followed by some interesting pictures depicting the joy and relief of having had some serious dental defect corrected with practically no pain, the readers' interest would have been just as great and the benefit to the health of the nation inestimable. Even in difficult cases by the use of premedication, local and general anaesthesia, and skilful technique there is little to fear in the modern dental office. In the very large majority of cases difficult problems would not arise if people would visit their dentist regularly, and if children were looked after at all adequately.

Further emphasis is placed upon this most unfortunate situation on page sixty-three of your July 25 issue.

"Life" has proven to be one of the popular magazines found in the reception rooms of dentists and physicians, on this continent at least. The pictures referred to would, of course, force the dentist, and the physician as well, to remove these issues of "Life" from their offices, since the physician is as interested as the dentist in building up public confidence in the health professions.

We trust that you will reconsider your policy in this regard and join hands with us in trying to build up the health of America's youth.

Yours faithfully,

M. H. GARVIN.

The uneducated mind is not empty. It is quite as full as the educated mind. The only trouble is that it is full of weeds, and education is as much the pulling up of these weeds and clearing the ground as it is the planting of useful crops of information. The ignorant mind is not a blank, but it is full of all sorts of tomfoolery.

The greatest enemy to progress is not ignorance and vacuity; it is wrong information.—Dr. Frank Crane.

BOOK REVIEWS

Fractures of the Jaw, by Robert H. Ivy, M.D., D.D.S., F.A.C.S., Professor of Maxillo-Facial Surgery, School of Medicine, Graduate School of Medicine and School of Dentistry, University of Pennsylvania; and Lawrence Curtis, A.B., M.D., D.D.S., F.A.C.S., Assistant Professor of Maxillo-Facial Surgery, Graduate School of Medicine, and School of Dentistry, University of Pennsylvania, Philadelphia. Second edition, thoroughly revised. Octavo, 192 pages, illustrated with 199 engravings. Published 1938 by Lea and Febiger, Washington Square, Philadelphia, Pa. Cloth \$4.50, net.

In preparing this second edition the authors have drawn on the experience of the past seven years. The work is chiefly valuable in pointing out the availability of procedures which can be applied universally without resort to complicated dental laboratory appliances. New illustrations have been added and more detailed descriptions given to some of the procedures.

Since automobile accidents and athletic injuries are becoming increasingly frequent every dentist might profitably peruse this splendid text-book and so avoid the possibility of handling these cases in a haphazard manner, thus crippling the patient and injuring his own reputation.

The book is enhanced by helpful chapters on roentgenographic technique by LeRoy M.

Ennis, D.D.S., and on the dietary management in fractures of the jaws by Clyde W. Scogin, D.D.S.
M. H. G.

•
A Scrap Book of Dental Informalities, by Herbert Ely Williams, D.D.S., of Red Bank, New Jersey. Published by Schuyler Press, Asbury Park, New Jersey, U.S.A. 172 pages. Cloth, \$3.00.

If one is interested in reading a dental book which is different, obtain this one. As the title indicates, this is a collection of writings and pithy sayings by Dr. Williams, known as the "Sage of Red Bank" or "The Ambassador of Good Will." His experiences are valuable, more particularly, because they depict a philosophy which is applicable in every day dental practice. A great many subjects are dealt with, and each article is dedicated to some prominent dentist or some organization. One article is dedicated to the *Journal of the Canadian Dental Association*.

Dr. Williams says there are three varieties of dentists:—(1) self-appraised; (2) dental society recognition; (3) patients' appraisal; but from a financial, economic standpoint no dentist is a bit better than his patients' opinion of him.

The author states that 3,000 copies of this book were subscribed for before going to press and that being human and unorthodox it should encourage the eight of ten dentists who are not doing as well as the others.

M. H. G.

Conventions

FOURTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB,
MONTREAL, OCTOBER 12-14.

TWENTY-FIFTH ANNIVERSARY MEETING OF THE AMERICAN ACADEMY OF
PERIODONTOLOGY, CORONADO HOTEL, ST. LOUIS, MISSOURI,
OCTOBER 20-22.

AMERICAN DENTAL ASSOCIATION, ST. LOUIS, MO., OCTOBER 24-28.

14TH GREATER NEW YORK DENTAL MEETING, HOTEL PENNSYLVANIA,
NEW YORK CITY, DECEMBER 5-9.

NEWS FROM THE PROVINCES

ONTARIO:

Honour Memory of Late C. Angus Kennedy

The dental profession has placed a plaque at the door of the library in the Dental Faculty Building of the University of Toronto in memory of the late Dr. C. Angus Kennedy. For many years Dr. Kennedy was connected with the faculty staff as Associate Professor of Orthodontia. For 24 years he was librarian and curator of the library museum. For 28 years he was a member of the Board of Governors of the Ontario Dental Association. It is therefore fitting that his services should thus be recognized.

Academy of Dentistry

The Executive Council of the Academy of Dentistry, Toronto, has completed its program for 1938-39. The following is a brief outline:

October 24th—first stated meeting at Eaton's Round Room—dinner at 7.00 p.m. Speaker, Carleton W. Stanley, President of Dalhousie University, Halifax, Nova Scotia.

November 26th—at Osler Hall, Academy of Medicine Building at 8.15 p.m. Speaker, Dr. Ralph S. Voorhees, Rochester, N.Y. "Radiography in Dental Practice." Special 2-day course November 17th and 18th.

December 7th—Winter Clinic at King Edward Hotel—9.00 a.m. to 10.00 p.m. Dr. W. G. Trelford, director.

January 12th—at Osler Hall, Academy of Medicine Building at 8.15 p.m. Speaker, Dr. George E. Morgan, Milwaukee, Wisconsin. "Dentistry for Children."

January 26th—"At home to the ladies"—dinner dance at Simpson's Arcadian Court, 8.15 p.m.

February 8th—Past President's night at Osler Hall, Academy of Medicine Building at 8.15 p.m. Speaker, Dr. Wingate Todd, Western Reserve University, Cleveland, Ohio.

March 2nd—Osler Hall, Academy of Medicine Building at 8.15 p.m. Speaker, Dr. Edward L. Ball, Cincinnati, Ohio. "Diagnosis and Treatment of Periodontal Lesions."

March 29th—at Osler Hall, Academy of Medicine Building at 8.15 p.m. Speaker,

Dr. V. H. Kazanjian, Boston, Mass. "Oral Surgery."

Red Cross Adds Dental Services

As the latest development in its extensive service program for sick, disabled and needy veterans and dependants in Toronto, the Red Cross reported the establishment during the current year of its own dental offices in the Red Cross Lodge on Christie Street.

Here a Red Cross dentist and assistant are working full time on denture and extraction work to fill the increasing dental needs, due in large part to advancing age, of distressed ex-service men, who come to Red Cross Headquarters for help in this connection.

Dental Nurses

The Toronto Dental Nurses' Alumnae Association held its opening meeting of the season September 13 at the home of Miss Adele Cameron. President Miss Dorothy Collett was in the chair.

One happy event of the evening took place when Miss Collett made Miss Pearl Bartindale the first honorary member of the alumnae, in appreciation of her many services to the association.

At the adjournment of the business meeting a social hour was spent to welcome new members. Games were played and refreshments served.

QUEBEC:

Montreal Dental Club

During midsummer the Montreal Dental Club held its annual Golf Day at the Grovehill Golf Club, with one of the best turnouts in recent years. Dr. Leonard Kent turned in the low gross score of 79 and was awarded the Championship Cup. Low net honours fell to Dr. Maurice Donigan with a gross of 80, net 65; this is the third or fourth time Dr. Donigan has captured this trophy. The President, Dr. Barr, presided at the dinner and presentation of prizes.

Released from Prison Term

In the June issue of the JOURNAL under the above title it was stated that an hour after his incarceration, Valmore Jolicoeur, convicted

of illegally practising dentistry, was liberated from a six months' prison term by a Royal prerogative issued by Premier Maurice Duplessis, acting in his capacity as Attorney-General of the province. Following this, however, he was resented and imprisoned for six months.

Items of Interest from the Report of the College of Dental Surgeons of the Province of Quebec

The Hygiene Committee of the Board has succeeded in establishing an organization aiming at promoting the dental hygiene in the province of Quebec. It is expected that the sum of \$10,000 will be expended before long in a Dental Hygiene Campaign. The new organization will be called "The Dental Hygiene Society of the Province of Quebec."

During the course of the years 1936-7 and 1937-8 the Council held eleven meetings. From information received from confrères or other trustworthy persons, more than 135 investigations of illegal practice were conducted. Following these investigations 49 cases were taken to Court.

Dental Nurses and Assistants Convention

The following is the program of the Montreal Dental Nurses and Assistants Association to be held in conjunction with the Fourteenth Annual Fall Clinic under the auspices of the Montreal Dental Club, Mount Royal Hotel, Montreal:

WEDNESDAY, OCT. 12TH

8 p.m.—Table Clinic and Poster Exhibition.

THURSDAY, OCT. 13TH

8.30 a.m.—Registration.

9.45 a.m.—Speaker—Dr. Stephen A. Moore, Pres. Canadian Dental Assoc. Subject—Growth and Development of the Teeth in Relation to Occlusion.

11.15 a.m.—Speaker—Miss K. Anderson Ottawa, Ont.

12.15 p.m.—Luncheon—Mount Royal Hotel.

2.30 p.m.—Speaker—Dr. Hollis Stevenson, Plattsburgh, N.Y. Subject—Simplified Bookkeeping.

3.30 p.m.—Speaker—Dr. Amyott. Subject—Moving Pictures of Dentistry in Labrador.

7.30 p.m.—Dinner place to be announced.

9.30 p.m.—Dinner Dance, Mount Royal Hotel.

NOVA SCOTIA:

Annual Convention

The 48th Annual Convention of the Nova Scotia Dental Association opened at the Cornwallis Inn on September 5. Dr. F. R. Duxbury, Halifax, president of the Association, presided over all sessions which were attended by about 40 dental practitioners. The Convention this year is in the nature of a short, post-graduate, refresher course on "partial dentures," given by Dr. Edward A. Kennedy, New York. The clinics were illustrated by models, lantern slides and movie films. A number of members also took part.

It was decided that outlying sections in Nova Scotia, particularly the mining and fishing districts would be served by a car and trailer, giving free dental examination. This will be provided through the co-operation of the Nova Scotia Dental Association and the Provincial Department of Public Health.—*Halifax Chronicle* and *Halifax Mail*.

PRINCE EDWARD ISLAND:

Annual Convention

The 38th Annual Meeting of the Prince Edward Island Dental Association was held in Charlottetown, August 25th, 1938.

The following officers and council for the year were elected:—

President—Dr. F. C. Dougan.

Vice-president—Dr. R. H. Barrett.

Secretary-Registrar-Treasurer—Dr. Heath MacIntyre.

Members of council—Dr. A. A. Lochart, Dr. J. A. MacMurdo.

A vote of appreciation was extended to Dr. J. H. Ayres, the retiring Secretary-Registrar-Treasurer, who has acted in this official capacity for fifteen years of the association's existence.

The standing committees were then elected and regular routine business completed.

Dr. Heath MacIntyre, representative to the Dominion Dental Council Association meeting in Vancouver, B.C., gave a comprehensive and interesting report on the work carried on at the recent convention.

The representative to the Canadian Dental Association, Dr. J. A. MacMurdo, presented a complete and instructive account of the activities of this Association's convention.

A report prepared by Miss Mona Wilson, Field Secretary, on School Dental Clinics, was read. Commendable and really worthwhile service is being carried on throughout the province in various localities which are distant from resident dentists and also in the larger centres where many families are unable to afford necessary attention.

After a round table discussion the meeting adjourned. The place of meeting for next year was left with the Council to decide.

BRITISH COLUMBIA:

School Dentist

At a special meeting of the New Westminster school board Dr. J. W. Conn of Vancouver, was appointed school dentist at a salary of \$3,000 a year, the appointment to date from September 1. Dr. Conn will give his full time to this work.

ALBERTA:

Calgary Dental Society

The Calgary Dental Society held its first meeting of the season on September 12, at the Renfrew Club.

Drs. A. M. Palmer, Murray McCaffrey, T. A. Skinner and John W. Clay reviewed briefly several of the more important subjects dealt with at the Pacific Coast Dental Conference, held in Vancouver in July.

Dr. Ante's Visit

In the course of his tour through Western Canada, Dr. Irvin Ante of the staff of the Dental Department, Toronto University, held largely attended classes in Lethbridge, Calgary and Edmonton. He demonstrated with the aid of moving pictures, and a patient who travels with him (and who probably holds the record for the Dominion of Canada for having impressions taken), a modified Fournet-Tuller technique for denture construction.

He gave an excellent clinic, packing much into a one-day meeting.

Dr. Victor Lloyd of Edmonton, has been elected national vice-president of the Kinsmen at the annual convention held in Winnipeg.

SASKATCHEWAN:

Two Elected to Dental Council

On Friday, August 12, the election, by acclamation, of Dr. D. J. Brass of Yorkton, and Dr. P. W. Winthrope of Saskatoon, to the Council of the College of Dental Surgeons of Saskatchewan, for a two-year term, was announced.

The other three members of the Council who have another year to serve are: Dr. W. W. Irwin of Moose Jaw, and Drs. E. W. Mounter and W. Fraser Smith of Regina.

Public School Dental Service

The Regina City Council has made a change in the method of supplying dental services to the public and separate school pupils of the city. The city has taken over the clinic formerly conducted by Dr. Walter Hancock in one of the schools under the School Board, and is fitting up offices for the dental clinic and school nurse in the City Hall. In addition to Dr. Hancock, Dr. T. J. E. Cooke, recently of Dolseley, Sask., has been engaged, both being on full time and they will have a three chair office to care for the children of the public and separate schools.

Clinics By Dr. Ante

Dr. Irvin H. Ante, of Toronto, is conducting his one-day course in prosthetics in four cities in Saskatchewan during September. He will clinic to a group in Swift Current on September 15, in Moose Jaw, September 16, in Saskatoon, September 19, and in Regina, September 21. The men are anticipating a valuable short course in this important work, and reports from cities in which he has recently appeared would indicate they will not be disappointed.

MANITOBA:

Winnipeg Dental Society

One of the most successful golf seasons of the Winnipeg dental profession, in which 65 players took part, was brought to a close on Wednesday, September 14, at Pine Ridge Golf Club, with the playoff for the trophies, followed by the usual banquet, presentation of prizes, and community singing, led by our good-natured conductor, Dr. Garnet Leckie.

The following are the season's winners:—

Ash Cup:—Winner—Dr. H. R. Stewart;
Runner-up—Dr. C. O. Wood.

Temple Pattison Cup:—Winner—Dr. W. A. Miller; Runner-up—Dr. C. D. McLeod.

Denco Cup:—Winner—Dr. B. Oja; Runner-up—Dr. A. J. Courtice.

Harris Cup:—Winner—Dr. E. Hilton;
Runner-up—Dr. G. A. Buchanan.

Monthly low net winners:—

May—F. W. Fell, C. D. McLeod, T. G. McCarthy, L. N. Green.

June—C. O. Wood, R. A. McGillivray, H. J. Lawrence, N. S. Bailey, J. O. Brown.

August—P. Hutzulak, Frank Jones, C. S. McLeod, B. Oja.

September—Special prizes: H. R. Stewart, P. Hutzulak, C. D. McLeod, W. A. Miller, K. M. Johnson, B. Oja, H. J. Lawrence, E. Hilton, G. A. Buchanan.

Hidden holes—B. Oja, J. A. Bleakley, H. R. Stewart, J. A. Dow, T. N. Belden, W. A. Miller, E. Hilton, F. McKinnon, N. Merkeley.

Dental Nurses

Members of the Winnipeg Dental Nurses and Assistants Association commenced their activities for the coming season with a corn roast on August 29, when they were the guests of Mrs. A. M. Browning. Community singing around a huge bonfire made the event an enjoyable one.

On September 12th, the Association was the guest of the Winnipeg Dental Society at a dinner held in Moore's Banquet Hall. Mrs. Donald Black, President, welcomed the two life members, Mrs. A. W. Sime, and Mrs. E. A. Robson, both past presidents and also Mrs. C. Pearce, a former member but who is now residing in British Columbia. The President also extended a hearty welcome to the many new girls present for the first time, to join the Association.

H. WYLIE.

EMPIRE NEWS

GREAT BRITAIN:

British Dental Association

At the Annual General Meeting of the British Dental Association held at Queen's University, Belfast, July 30, 1938, Mr. Herbert Elwood was inducted as President, and Mr. T. R. D. Walkinshaw of Newcastle-on-Tyne, was appointed President-Elect.

•

Parliamentary Intelligence Refugee German and Austrian Doctors

On June 25 Mr. Parker asked the Home Secretary whether refugees from Germany and Austria were allowed to practise as doctors or dentists in this country if suitably qualified; and whether the Government, in dealing with this question, consulted the principal professional organizations concerned.

Mr. Lloyd said that permission had been given in a limited number of cases to refugee doctors and dentists from Germany to practise their profession after admission to the British Medical and Dental Registers. The question of admitting a further number of refugee doctors and dentists from Austria was under consideration. Before reaching a decision the Home Secretary proposed to consult

representatives of the medical and dental professions in this country.—*British Dental Journal*, July 15, 1938.

AUSTRALIA:

Conference on Education

A Conference on Education for a Progressive, Democratic Australia was held in Sydney in June.

The Conference had for its object the concentration of public opinion upon the defects and inadequacies of the present educational system, and upon the necessity for increased Government expenditure on education. The Conference treated the pre- and post-school situations as well as the school situation. It included the necessity for education for the prevention of disease, both general and dental, and urged the establishment of active and adequate health services.—*Dental Journal of Australia*.

NEW ZEALAND:

National Health Insurance

The following is a brief summary of the report prepared from the findings of a dental

committee and forwarded to the Government for consideration:—

1. A great deal of present day dental disease can be eliminated by preventive measures.
2. An urgent necessity exists for intensive research into the causes of dental disease in New Zealand.
3. There should be undertaken an energetic campaign of educational publicity regarding the methods of prevention, which are known to be of some value in inhibiting dental disease.
4. In any plan to correct dietary habits steps should be taken to limit the consumption of such foodstuffs as are known definitely to favour the occurrence of dental caries.
5. There should be an expansion of the present State Dental Service.
The following is recommended:—
 - a. The personnel of the present service should be increased to cover the treatment of all primary school children up to and including the Fourth Standard and all pre-school children.
 - b. When this object has been achieved the personnel should again be increased by the appointment of qualified dental surgeons, to treat the children up to and including the Sixth Standard.
 - c. The pre-school child should receive, first, consideration from a health standpoint and, second, from an economic point of view.
 - d. In order to reap the full benefit of this scheme, it is strongly recommended that treatment should be made compulsory.
6. Older children, whose parents are unable to pay the ordinary fees of private practitioners should receive treatment by the Government, subsidizing the treatment to the extent of five shillings per filling, such subsidy to be limited to those families whose incomes do not exceed £230 per annum—the balance of the fee per filling to be arranged between patient and dentist.
7. The Government should take over the existing dental departments of the vari-

ous hospitals so as to treat the indigent and pensioners only. This would give unified control, be economically sound, would tend towards greater efficiency and eligibility, for treatment would be standardized.

8. Any scheme should be administered directly by a Government Department.
9. The object to be aimed at is complete oral and dental health for all people—juveniles and adults.

PART II OF REPORT

Adults who are unable to afford dental treatment under the present system should be referred to dentists in private practice, the Government to pay a portion of the fee by means of a subsidy graduated according to the income and number of dependants of the patient, the balance of the fee to be paid by the patient.

Any scheme should apply only to those people whose total income (including that of wife) is below £230 per annum. It should also include the dependants of this lower income class, but a large number of these would be taken care of in the schools.

A patient would apply to the Dental Department for a Dental Letter which would be taken to his dentist who would decide what treatment was necessary and fill in the form letter accordingly. This letter would be sent to the Department, where it would be checked and where it would be decided as to how much the Government was prepared to pay. This, of course, would be according to schedule.

By this plan the dentist-patient relationship is maintained; the dentist is not working for less than his normal fee; the dentist is not made to carry any extra burden and patients would be able to obtain the highest class of work, even in dentures.—*Excerpts from New Zealand Dental Journal, May, 1938.*

SOUTH AFRICA:

Dental Education

At the March meeting of the South African Medical Council, held in Cape Town, it was resolved that the suggestions, submitted by the inspectors of the examinations of the

Faculty of Dentistry of the Witwatersrand, be communicated to the University for opinion and comment.

The suggestions were:—

- (a) That the number of hours required for purely mechanical laboratory study be reduced to 1,500 hours and that the 500 hours consequently available be devoted to increasing the time provided for the study of:
 - (i) Nutrition;
 - (ii) The application of Preventive Principles in Dentistry;

- (iii) Diagnosis and Treatment Planning;
- (iv) The Principles of Medicine;
- (v) General Pathology.

Or

- (b) That instead of insisting upon a *fixed number of hours* in connection with Dental Laboratory Study, that each student be required to complete a *fixed number of specified mechanical cases*.

This would encourage the adept student, and more time would be available for the study of the subjects referred to above.

GENERAL NEWS

School Dental Service

The City of Toronto Department of Health is said to have one of the finest school dental services on the continent. The excellent standard attained is largely due to the efforts of Dr. A. E. Grant, the Dental Director and Dr. Gordon P. Jackson, the Medical Officer of Health, who is very interested in this work. One of the services rendered by the dental staff is to examine the teeth of every school child and make a record of the findings. If the child's teeth are in need of dental care, a card is given the child to take home to its parents which very simply advises that "A DENTAL EXAMINATION IN THE CLASSROOM BY THE SCHOOL DENTAL OFFICER REVEALED THE PRESENCE OF DEFECTIVE TEETH WHICH ARE IN URGENT NEED OF TREATMENT BY A DENTIST."

Accompanying the above card is a pamphlet with the following message:

Important Advice to Parents on the Care of Children's Teeth

THE SCHOOL CHILD

Once each year a dental examination is given to each child in Public and Separate Schools by the Department of Public Health.

If your child's teeth are defective, a pink card is made out, showing conditions found and it is given to the child to bring home to you.

While every effort is made to make as thorough an examination as possible, yet, because it is made in the classroom with limited light, and because the Dental Officer

has to examine 100 to 150 children each morning, it is quite probable that when you take your child to your own dentist he may discover other conditions with the more complete facilities he has for thorough examination. However, the Department feels that it has rendered a real service notifying you that your child's teeth are defective and in urging you to take him, or her, to your family dentist for the necessary treatment as soon as you can. Dental decay is particularly prevalent in early years and progresses very rapidly in children, so that delay may have very serious consequences and involve a great deal more expense.

If, however, you are unable because of financial reasons, to take your child to your own dentist, you are asked to sign the pink card and return it to the school. An endeavour will then be made to give the necessary treatment at one of the School Dental Clinics conducted by the Department. As there are not enough of these clinics to care for all children, it is necessary to limit this service to those who are unable to pay for private treatment. It must be understood further, that it is not possible to treat all children immediately, because our examinations reveal enough work to keep the clinics busy for the ensuing year, and while your child will be treated in turn, yet it is possible that considerable time may elapse, after you sign the card, before an appointment can be arranged.

THE CHILD UNDER SCHOOL AGE

May we also remind you that tooth decay starts long before school age. Dental ex-

aminations show that children of 3, 4, and 5 years of age may have cavities in their teeth. All health authorities are agreed that dental decay is common in children's mouths before they enter school. This often constitutes a grave menace to the health of the child, and in many cases, lays the foundation for other ailments in later life.

It is strongly urged that children not yet in school be taken to the dentist for regular periodic inspection and treatment if necessary, beginning at 3 years of age. This helps prevent your child from developing diseased teeth, a condition that is all too often seen when children start school at 5 or 6 years of age. If again, for financial reasons, you are unable to take your child to your own dentist, appointment should be made through the School Nurse to receive the necessary dental treatment in the School Clinic. Time is reserved for these very young patients each Friday afternoon.

Preservation of first teeth, together with proper food, will do much to ensure strong and well-formed permanent teeth. Moreover, early care of the first teeth will usually prevent pain and fear of dental treatments.

Do not neglect the little tots' teeth; they mean so much to their comfort and health.

DEPARTMENT OF PUBLIC HEALTH
City of Toronto

Chicago Dental Society Announces Dates For 1939 Midwinter Meeting

The 1939 edition of the Midwinter Meeting of the Chicago Dental Society will be held on February 13-16 incl., at the Stevens Hotel, according to an announcement recently issued by the officers of the Society. The meeting will once again return to its four day session after an experiment with a five day session last year.

In 1938 the Midwinter Meeting achieved new records in attendance with over ten thousand visitors being registered during the five days. Greatly enlarged commercial and scientific exhibits were also features that will be continued for the 1939 meeting.

WPA Orders False Teeth (N.Y.C.)

The WPA announced today that a contract had been signed with private dental laboratories to supply 22,000 sets of false

teeth for home relief recipients here, at the rate of 136 dentures a day. The WPA formerly supplied false teeth made by dentists on relief rolls, but there were not enough of them and some persons had been waiting two years for teeth.—*Kansas City Journal Post*, August 12, A. D. A. News Release

Education

Instruction from teachers and books teaches a man what to think, but the great need is that he should learn how to think. Memory tests as evidence of a man's mental capacity have been greatly overrated and too little attention has been paid to those methods of training that teach how to apply what he knows. We are so likely to think of knowledge as synonymous with education. But knowledge is static. Have we thought enough of wisdom, which moves knowledge and makes it useful? We think of truth as something that is invariable, but add a new circumstance and we have a new truth. Truth moves, as life moves, and what is true of one generation may not be true of the next. And this is true of education. The future of this country and of the blessings so markedly developed here depends on a continuing education, not only factual, but along the lines of sociology.

Education must concern itself with the aspirations and needs of the common man. Formal education in this changing age must alter in order to meet adequately the problems that have to do with human beings and their social relationships. That better social understanding is developing is evidenced by our increasing provisions for the benefit of all the people, in libraries, art galleries and museums, good roads, lakes, parks, athletic fields, and playgrounds. Developing and advancing as we are, scientifically, culturally and socially, we must be careful that these changes are not controlled, although perhaps to some extent they may be guided, by the conservatism of older people.

It is because Mrs. Mayo and I, and our families, are interested in a continuing education in this broader sense, that we are devoting our house and gardens, with an endowment sufficient for their maintenance, to the purposes of the The Mayo Foundation for

Medical Education and Research, of the University of Minnesota. We have no desire in any way to dictate or control the manner in which this adventure in education shall be carried out. It is for the younger people to meet the conditions of their generations in the way that appears to them to be wise and best.

The donors hope that the Mayo Foundation House will be a meeting place where men of medicine may exchange ideas for the good of mankind.—*William J. Mayo, Rochester, Minn., U.S.A. from Proceedings of the Staff Meetings of the Mayo Clinic.*

Dental Student Enrolment

The following is a tabulation of the enrolment of students in the dental schools of the United States as to October 15, 1937:—

<i>Year</i>	<i>Total Enrolment</i>
1928-1929	8200
1929-1930	7813
1930-1931	8129
1931-1932	8031
1932-1933	7508
1933-1934	7160
1934-1935	7175
1935-1936	7306
1936-1937	7397
1937-1938	7184

—*American Dental Association.*

Premedical Education

At the American Medical Association Convention held in San Francisco in June the Council on Medical Education and Hospitals advised a three years' college education before entering medical school.

To Celebrate 25th Anniversary

November 1938 marks the 25th Anniversary of The Allied Dental Council, to be celebrated by a Four Day Meeting, November 2-5, 1938, in the Hotel McAlpin, New York City. During these 25 years we have seen great forward strides made in our profession.

The Allied Dental Council has been no small factor in this forward march. Organized with a three-fold policy of Legislation, Education and Organization, it has risen from a membership of some 200 dentists to a membership of 3,000; from an affiliation of three dental societies to nine dental societies.

During the year 1937-38, The Allied Dental Council and its constituent societies have given 1075 educational sessions, as follows: 98 lectures, 412 clinics, 25 round table discussions and 540 sessions of post-graduate and study class instruction.

Children's Dentistry at the St. Louis Meeting

The American Dental Association's 1938 slogan "Dental Health for American Youth" offers a challenge to the Children's Dentistry and Oral Hygiene Section. The officers of this section have accepted this challenge and have prepared an extremely practical, useful and needful program for the St. Louis meeting.

To those interested in the oral hygiene and educational phases and responsibilities of dentistry, outstanding essayists of national note and proven principles will bring the latest and most applicable means to successfully consummate these desired goals. We cordially invite all general practitioners in dentistry, dental hygienists, assistants, health and social welfare workers, teachers, physicians, and those interested in better health and happiness for boys and girls, to join us. It is not only our duty and obligation but our privilege to help bring about 'Dental Health for American Youth'."

Science Service Offers Dental News Articles

Miss Jane Stafford, Science Service Medical writer has recently written twelve stories on the care of the mouth. Dental societies who are interested in having the series used in local newspapers can secure them from Science Service, 2101 Constitution Ave., Washington, D.C.

Although planned as a series, the stories are written so that each one is complete and may be used by itself, or several may be combined to make a few longer stories. The series is designed as health education that will fit in with the ideas of local dental societies.—*A. D. A. News Release.*

Dentistry at the Golden Gate Exposition

Occupying one entire island in the Hall of Science of the Golden Gate exposition, the

American Dental Association, the American Medical Association and the famous Mayo Brothers Clinic will tell the story of humanity's health to the millions of people who will visit San Francisco next year.

The three groups have jointly planned and designed their individual exhibits so that when erected side by side they will present a unified picture of man's fight against disease. Both the A.M.A. and the A. D. A. exhibits are being constructed by the same artists. This, fortunately, permits uniformity and prevents overlapping and repetition.

A nicely balanced presentation of electrically motivated exhibits, translights and three dimensional material will portray the progress of dentistry through the ages; the influence of teeth on appearance; the effect of teeth on health and efficiency; the progress of dental decay; the progressive destruction caused by calcareous deposits; what good dental care means to the individual and modern methods of preventing dental disease.—*A. D. A. News Release*.

Socialized Medicine

The extended program recommended by the National Health Conference is approved by at least two-thirds of commenting newspapers, who agree with the argument that the government is properly concerned with the health of the people and that the cost suggested, to be borne by federal, state and local governments, is not too high a price to pay.

The minority mistrusts the plan fearing that it would stifle the medical profession under political control; that the evils that would follow would counterbalance any good it might do.

Advocates of the plan argue that the proposal is merely an extension of service accepted as a Federal and State duty for many years! That it is but right to extend to the poorer communities and classes the benefits now enjoyed by others. Opponents insist that medicine is not a commodity; that Government control to the extent proposed would be an evil; that the attitude of organized medicine against non-professional influences should be indorsed.—*U.S. News, August, 1.*—*A. D. A. News Release*.

The Dental Assistant

The following are the results of a nationwide survey of America's practicing dentists on the place in modern dental practice of the dental assistant, made by Dental Survey.

Important revelations made by the survey show that:

The average age of dental assistants is 27.

85% of dental assistants are single; 15% married.

Dentists who have an assistant have had one in their employ for an average of 12 years.

Only 10% of dentists who have an assistant employ a graduate dental hygienist; 90% have a girl with only office training.

75% of dentists think an office-trained girl makes a better assistant than a graduate dental hygienist.

Dentists are unanimous in believing an assistant increases their efficiency and improves their practice. Saving of time is given as the greatest single asset; psychological effect on the patient is a close second.

61% of dentists think business training is essential to a dental assistant; 39% do not require it.

Education of dental assistants now employed:

Elementary School.....	3%
High School.....	65%
Business College.....	20%
College or University.....	12%

In order of importance these are the qualities which American dentists require in their assistants:

- Neatness
- Pleasing personality
- Honesty
- Good appearance
- Interest in the practice
- Study and initiative
- Business and office ability
- Mechanical ability.

Dentists who employ an assistant are located as follows:

Rural sections: 8%; Suburban districts: 12%; Downtown offices: 80%.

Dentists who do not employ an assistant are located as follows:

Rural sections: 14%; Suburban districts: 36%; Downtown offices: 50%.

—*Dental Survey, August, 1938.*

Jap Health Insurance

Latest European product to be imitated in Japan is health insurance. The Nipponese imitation was scheduled for a debut July 1, with the blessing of the national diet.

Health insurance is the second step of the government's new public health program. First was the formation of a cabinet ministry of public health and social welfare, last February.

Under the new law, the government will supply light subsidies but heavy encouragement to private, independent health-insurance societies. Optimistic Jap officials see 500,000 members in the fold by July, 1939; 50,000, 000 by 1953.—*Medical Economics*, August, 1938.

Research Notice

The American College of Dentists, at its last annual meeting, inaugurated plans to promote research in dentistry. These plans include grants of funds (The William John Gies Fellowships), to applicants, in support of projected investigations; and also the formal recognition, through annual awards (citations,—The William John Gies Awards),

of distinguished achievement in dental research. Applications for grants in aid of projected researches, and requests for information, may be sent to the Chairman of the Committee on Dental Research of the American College of Dentists, Dr. Albert L. Midgley, 1108 Union Trust Building, Providence, R.I.

C. A. D. C.

The Canadian Army Dental Corps Committee of the Canadian Dental Association has for some time been working on a report to be submitted to the Honourable Minister of National Defence relative to dental service in the national forces. This report is now being submitted to the Minister.

Correction

In the article entitled the Walter G. Zoller Memorial Dental Clinic appearing on page 477 of our September issue, section A. in the first column should read as follows:—

The dental service would be performed at the University for patients whose health would otherwise be investigated carefully.

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

Clarence Frederick Montgomery Purdy of Moncton, New Brunswick, died suddenly from a heart attack on August 25.

He graduated from the Dental Department of Dalhousie University in 1923. His first practice was in Chipman, N.B., where he remained for several months before taking up residence in Petitcodiac. He practised two years in that village, then moved to Moncton where he has since practised.

Dr. Purdy was one of the charter members of the Moncton Gyro Club and was instrumental in founding the city's first Dental Clinic which was backed by that organization. He was a member of the Moncton branch of the Knights of Pythias, the Elks Club, the New Brunswick Dental

Society and the local Board of Trade. He was recently appointed dental surgeon to the Jordan Memorial Sanatorium, at River Glade.

He was an active member of the St. John's United Church.

Dr. Purdy is survived by his mother and two brothers.

James H. Barton, of Saint John, New Brunswick, aged 65, died August 23, following a lengthy illness.

At one time he was Commodore of the Royal Kennebecasis Yacht Club and the Saint John Powerboat Club.

Dr. Barton is survived by his widow, a daughter, a sister and three brothers.

. . . SECTION FRANÇAISE . . .

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Faiblesse des Amalgames

LA GLOIRE est chose très précaire en notre pays d'Amérique. S'il faut peu de chose pour devenir célèbre; si le crime aussi bien que la plus belle des philanthropies peut vous attirer une sympathique évidence; il en faut peut-être moins pour tomber en déchéance. Encore un peu et ce sera le sort de l'amalgame.

Il y a quelques années seulement on proclamait qu'aucune substance obturatrice ne valait l'amalgame. Toute une série de démonstrateurs sérieux ou hableurs envahirent nos congrès et jusqu'à nos moindres conventions pour en chanter les merveilleuses et indiscutables qualités.

Aujourd'hui on croirait cette substance atteinte de la pire débilité tant il y a de médecins pour lui offrir des toniques. Les uns la croient trop faible et lui veulent comme au béton incorporer des lamelles

métalliques. D'autres lui proposent des lavages avant l'insertion pour lui rendre et conserver l'inattaquable splendeur du platine. D'autres encore, je le suppose bien, vont lui ajuster des soutiens pour l'empêcher de fléchir avec l'âge s'ils ne tentent point de lui imposer un régime pour qu'il évite de prendre de l'embonpoint en vieillissant.

Tous ces remèdes sont-ils si nécessaires? En somme de quoi se plaint-on? Que l'obturation en amalgame est faible; qu'elle fléchit vers la gencive dans les cavités composées; qu'elle est fragile et se brise facilement au angles; qu'elle perd son lustre; que dans les cavités de face triturante, elle se gonfle au point de lever des épaules en vieillissant.

Hélas! ce sera bien toujours la même chose: si le chasseur a manqué la perdrix "c'est la faute au fusil," si le bucheron

se coupe les pieds c'est qu'on lui a fourni un mauvais manche de hache, si le dentiste retrouve ses amalgames fléchis, brisés ou soulevés, c'est la faute à l'amalgame.

Pourtant la plupart des alliages qu'on nous offre aujourd'hui sont fabriqués selon des formules bien étudiées. Presque tous offrent des garanties de grande solidité. Le coefficient de dilatation ou de contraction a été soigneusement contrôlé. Ces phénomènes d'ailleurs amènent des changements de volume si minimes qu'il faut un micromètre pour les constater. Ce serait donc à une autre cause qu'il faudrait attribuer ces épaulements que l'oeil perçoit si facilement sur certaines vieilles obturations de face triturante.

Voyons un peu quelles peuvent être les raisons de ces fractures ou de ces fléchissements qu'on attribue à une faible résistance à la mastication.

D'abord, mauvaise préparation et mauvaise insertion de l'amalgame. On y met trop ou bien plus souvent encore pas assez de mercure. L'amalgamation se fait très mal. Beaucoup de particules métalliques ne sont pas fondues dans le tout et y restent en guise de corps étrangers. Ces amalgames sont friables, poudreux parce que les molécules n'ont pas de cohésion. Ils se brisent facilement ou sous la mastication fléchissent vers la gencive. Qui de nous n'a pas noté la facilité ou la difficulté qu'on éprouve à fraiser certains amalgames qu'on veut enlever. Si par un truc quelconque il était possible de découvrir la marque de commerce de leur alliage, on y verrait qu'ils ont la même provenance. La faute en est donc à l'opérateur qui a fait un mauvais mélange d'alliage et de mercure. Il arrive aussi que l'insertion a été mal faite. On oublie trop vite qu'il faut appliquer la pâte en petite quantité et la presser très fortement (8 à 10 lbs de pression) dès les premières couches. Le surplus de mercure des premiers dépôts suffira pour alimenter les

autres. Il faut assécher au chamois l'amalgame qui reste en main et malgré cette précaution quand la cavité est remplie il nous reste encore un surplus de mercure qu'il faut enlever. Il ne faut pas oublier que même si la prise est commencée, l'obturation est encore très fragile et que l'opérateur lui-même peut briser l'angle proximo-triturant en enlevant la bande matrice. Cette bande d'acier doit être tirée du côté externe ou interne et non par la face triturante. La brisure peut être momentanément invisible mais cette partie de l'obturation tombera dans un temps plus ou moins rapproché. Le patient lui-même peut briser l'obturation avant que nous ayons eu le temps d'en parfaire la sculpture. Sentant un obstacle à la dent antagoniste, il fera forte pression en disant: "ça se place." Oui ça se place mais la masse axiale est séparée de la masse triturante même si ça n'est pas visible. Il est donc de toute nécessité de surveiller le patient dès qu'on lui rend la liberté de ses mouvements de mastication, et l'avertir que si l'obturation nouvelle est un obstacle à une occlusion parfaite, c'est que le travail n'est pas fini, qu'il doit se garder de toute pression sur cet obstacle. Il arrive aussi bien souvent qu'une obturation est terminée à la veille d'un repas et que le praticien oublie les recommandations d'usage.

La préparation de la cavité cause bien plus souvent la faiblesse d'un amalgame que la composition de son alliage. Si dans la reconstitution des parois pulpaire et axiale (fig. 1) on met tellement de ciment qu'il n'y reste plus de place pour l'amalgame à l'angle proximo-triturant, il n'est pas surprenant qu'il soit facile à briser.

Que penser maintenant de cette théorie qui voudrait que des amalgames de cavités simples puissent en vieillissant se dilater au point de sortir de la cavité, de "hausser les épaules" et de montrer des épaulements comme dans la figure 3 en A.

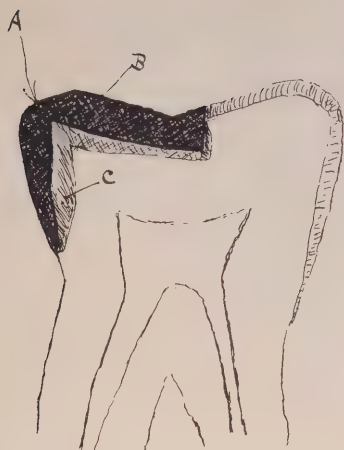


Fig. 1

A. Point faible de l'amalgame B. C. ciment.

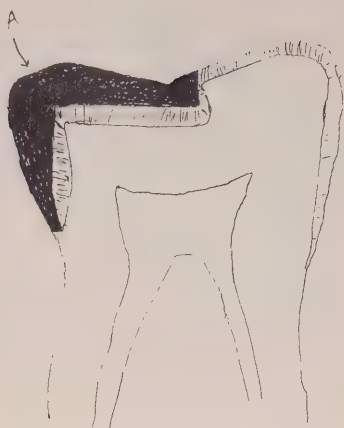
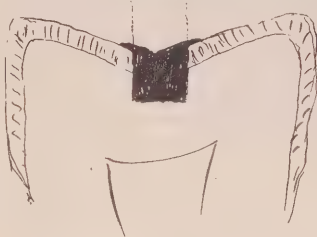


Fig. 2

Notez la différence à l'angle A épaisseur du ciment et de l'amalgame.



A



B

Fig. 3

J'avoue que je n'ai jamais pu me convaincre d'une telle possibilité. En effet, ces obturations ont rarement plus que 2 ou 3 millimètres d'épaisseur et réussiraient à se dilater au point de sortir de la cavité de $\frac{1}{2}$ à 1 millimètre, c'est à dire de $\frac{1}{4}$ à $\frac{1}{2}\%$, ce n'est pas facile à croire. Il m'est arrivé assez souvent d'observer ce phénomène sur mes propres obturations et j'en ai conclu que mon travail n'avait pas été parfait. Je crois qu'il n'y a qu'une

explication sérieuse à cet inconvénient. C'est tout simplement que l'on a inséré dans la cavité plus d'amalgame qu'elle n'en pouvait contenir. Il en est résulté que la substance s'est répandue sur l'émail hors de la cavité pour former des bavures si fragiles qu'elles se brisent ensuite et laissent des épaulements. (Fig. 3 en B) Les conclusions de ce travail tout comme les remèdes s'imposent d'eux-mêmes.

ALCIDE THIBAUDEAU.

Le Dentiste et sa Responsabilité Professionnelle

Conférence du 4ème Congrès des Dentistes de langue française de l'Amérique du Nord en Congrès à Montréal, le 3 juin 1938

par F. PHILIPPE BRAIS, C.R.

(suite)

Ces causes d'aiguilles, avec celles dans lesquelles il est question de dents échappées, ont donné lieu à un plus grand nombre d'actions que toutes autres causes.

Dans JUTEAU 1. B., l'Honorable Juge Philippe Demers a trouvé que la preuve établissait que la rupture était due à un mouvement nerveux du patient et non au dentiste. Il discute aussi la controverse relativement à l'usage d'aiguilles de platine ou d'acier. Sur les faits il arrive à la même conclusion que la Cour d'Appel. En droit, il dit:

"CONSIDERANT que toutes les opérations sont sujettes à des accidents dont le chirurgien ne saurait être responsable, à moins qu'on ne trouve que l'accident résulte d'une faute du praticien."

La doctrine générale française est exposée dans PLANIOL & RIPERT (Volume 6, Nos. 523 et s., p. 715) On lit:

"Le médecin est responsable de ses fautes dans l'exercice de sa profession. Sa responsabilité existe dans les mêmes conditions que les soins soient donnés en exécution d'un contrat, ou que le médecin les ait donnés sans accord préalable. Dans les deux cas il est tenu de la même diligence. Il est responsable d'abord lorsqu'il cause un dommage au malade soit intentionnellement, soit en lui donnant des soins quand il s'est mis volontairement dans un

état qui lui enlève l'exercice de ses facultés.

Mais il est aussi responsable, conformément au droit commun, du préjudice causé par son imprudence ou sa négligence dans le diagnostic du mal et l'application du traitement, et dans l'exécution des opérations."

(p. 719)

"Il convient seulement de faire, avec les arrêts, la réserve suivante: quand la constatation d'une faute implique l'appréciation de la valeur d'un diagnostic ou d'un traitement, discutée entre les médecins, ce n'est qu'avec une grande prudence que les tribunaux peuvent condamner, et seulement si les experts et les traités de médecins faisant autorité s'accordent à les rejeter. Il en est de même de l'appréciation des procédés employés par un chirurgien et de son habileté. La question n'est d'ailleurs pas spéciale aux médecins; elle est la même toutes les fois que le juge se trouve en présence d'une difficulté technique, même portant sur une question de droit: on n'est pas fautif à se tromper sur un point controversé.

Mais cette prudence et cette réserve n'ont plus de raison d'être lorsque la faute reprochée est une négligence dans l'application du traitement ou l'exécution de l'opération, telle que son appréciation ne soulève

aucun débat scientifique: ainsi une erreur matérielle dans la rédaction d'une ordonnance, l'administration d'un médicament à la place d'un autre, le fait d'oublier dans une plaie une compresse ou un instrument, de délivrer un certificat après examen insuffisant ou sans examen, de ne pas avertir une nourrice que le nourrisson qui lui est remis est "atteint d'une maladie contagieuse, d'approcher un thermocautère d'une peau encore humide d'alcool. Sans doute la personne la plus diligente est susceptible d'un oubli malencontreux. Mais si elle en subit les conséquences quand elle n'est pas médecin, pourquoi en serait-il autrement quand cet oubli a lieu dans l'exercice de la médecine?"

Il serait peut-être bon de faire une parenthèse et d'examiner immédiatement la doctrine relativement à l'opération non autorisée.

Il peut arriver des circonstances où un patient, sous l'effet d'une anesthésie, est entre les mains du médecin ou du dentiste. Le diagnostic préalable n'a pas révélé un état grave qui pourrait demander une décision d'urgence. Le médecin ou le dentiste peut-il intervenir et outrepasser l'autorisation qui lui a été donnée par le malade? A ce sujet, PLANIOL & RIPERT nous disent:

"Chaque homme a, et a seul en principe, le droit de disposer de son corps. Par suite, avant d'appliquer un traitement ou de pratiquer une opération qui présente des risques et une certaine gravité, le médecin doit obtenir le consentement du malade ou de ceux qui ont la charge et direction du malade. Et pour qu'il y ait consentement donné en connaissance de cause, il doit faire connaître le danger couru. Toutefois, l'appréciation de ce dernier devoir et son exécution sont

déliçates et les juges devront tenir compte des circonstances de fait. En particulier "le médecin ne doit pas être obligé, pour couvrir sa responsabilité, d'effrayer le malade en lui décrivant des risques qui existent, mais qui, d'après l'expérience, se réalisent rarement. D'autre part il peut prendre sur lui, en cours d'opération, si les circonstances le commandent, de faire plus ou autre chose qu'il n'avait été convenu. Il peut en cas d'urgence (ainsi en présence d'une hernie étranglée, d'une hémorragie grave) opérer immédiatement sans rechercher un consentement. Mais le consentement doit être strictement exigé lorsqu'il s'agit de l'expérimentation d'un traitement nouveau et dangereux ou d'une opération de résultat très aléatoire. Bien plus, le cas échéant, le médecin devra refuser son concours au client qui demande l'expérimentation, spécialement s'il s'agit d'une simple imperfection à faire disparaître, de chirurgie esthétique."

Aux Etats-Unis la responsabilité du dentiste a subi son évolution comme partout ailleurs. MIKELL, 'Dental Jurisprudence' dans le chapitre intitulé "Liability of Dentist to Patient for Malpractice" résume, je crois, au mieux possible, la situation, lorsqu'il dit:

"In General.—In determining the degree of care and skill which the physician, surgeon and dentist must exercise in order to escape liability for damages that the patient may suffer from his treatment, the courts are not entirely agreed. "All the courts hold that the practitioner cannot be held liable by showing that he did not exercise the highest degree of skill and care possible. All agree that to fasten such liability upon him, it is not necessary to

show that he was grossly negligent in the given case. It is certain that he must have treated the patient 'negligently' in order to be liable; and that if he exercised 'reasonable' care and skill, he is not liable.

The negligence which renders a dentist liable in an action for malpractice is simply a failure to perform the duty which he, as a professional man, owes to his patient. This duty is usually expressed in the formula; a physician, surgeon or dentist is required to possess and exercise that degree of skill and learning ordinarily possessed and exercised by the members of his profession in good standing, practising in similar localities; and it is his duty to use reasonable care and diligence in the exercise of his skill and the application of his learning, and to act according to his best judgment. The lay exacts of a physician, in the treatment of a patient, that reasonable degree of skill, and that reasonable degree of care, which are ordinarily possessed and exercised by the profession, and he is liable in damages only for injuries resulting to the patient from the lack of either of these requisites."

Cet auteur ajoute, qu'il faut en outre tenir compte:

a) Du lieu de l'opération.

Il cite des jugements dans des districts moins peuplés et avancés du continent, où il a été considéré qu'il faut prendre en considération l'adresse ordinaire employée et qu'on peut normalement trouver dans la localité.

b) De l'état de la science au moment de l'opération.

Il faut suivre les progrès de la science, mais on ne peut exiger que tous soient également à la page.

c) Des modes de traitements établis.

Le praticien doit employer des méthodes généralement reconnues par la profession. Une méthode employée depuis longtemps et maintenue par une pratique journalière doit être suivie.

d) Que les honoraires payés ne peuvent être pris en considération.

ROGER & GODON dans leur Code du Chirurgien Dentiste, ouvrage français, ont la même conception. L'ouvrage paru il y a déjà quelques années ne distingue pas entre la faute contractuelle qu'on reconnaît aujourd'hui, même en France, et le délit, mais les principes de distinctions demeurent les mêmes. Se rapportant au cas d'une dent tombée dans le poumon, ils concluent:

"Faut-il inférer de cette décision qu'une faute opératoire proprement dite serait exclusive de toute responsabilité pour le praticien? Nous ne le pensons pas. Dès qu'il y a une faute dommageable, la responsabilité en découle sans qu'aucune distinction puisse être faite entre le médecin ou le dentiste et le commun des hommes.

Mais il faut que la faute soit certaine; en d'autres termes que l'erreur du dentiste soit manifeste ou que son ignorance des principes de son art soit avérée.

Le niveau varie suivant les milieux, les circonstances, les moyens d'informations, les localités. Aussi n'est-il pas possible de donner ou d'établir, en cette matière, une règle fixe applicable à tous les cas qu'il s'agirait de juger. Quand la vie est engagée à raison d'une opération, le dentiste est tenu à un plus grand degré d'habileté. Ce qui pourrait être considéré comme une 'habileté moyenne' dans un cas pourrait devenir une négligence coupable dans un autre; lorsque le dentiste prend sur lui de faire une opération en employant un agent anesthésique,

il est clair qu'il doit être très attentif à l'état du patient.

Mais il ne faut pas oublier que l'expérimentation de nouveaux instruments et de nouvelles méthodes est dangereuse, dans les premiers temps surtout. Une méthode nouvelle faisant table rase de toutes les coutumes et pratiques établies pourrait engager la responsabilité de son auteur en cas d'accident en provenant. En pareil cas le praticien pourrait être convaincu d'avoir fait une expérience téméraire sur son client et condamné à des dommages-intérêts envers celui-ci, si un préjudice en était résulté.

En résumé le dentiste est soumis à la responsabilité de droit commun. Il doit répondre de toutes les conséquences dommageables des fautes commises par lui. Mais il faut qu'il n'y ait aucune incertitude sur l'existence de la faute et sur la relation entre la faute et le dommage. Et comme l'art de guérir est une matière où le juge ne peut se fier en général à ses propres lumières, le dentiste qui est l'objet d'une action en responsabilité trouve une garantie dans l'examen des experts. C'est à eux qu'en fin de compte il incombe de dire si le fait imputé au praticien constitue un manquement aux devoirs de sa profession."

Avant de considérer ce que le dentiste doit faire pour se protéger au cas d'accident, il serait peut-être bon d'examiner quelques cas concrets.

Dans la cause de *TURIFF vs. THE KING*, la Cour Suprême de Saskatchewan a condamné le dentiste qui aurait provoqué un abcès. Elle conclut:

"The question is whether there has been" a want of competent care or competent skill" to such an extent as to lead to the bad result; or, as it is stated in an American

case, whether the amount of care and skill bestowed is up to 'the average of the reasonable skill and diligence ordinarily exercised by the profession as a whole, not that exercised by the thoroughly educated nor yet that exercised by the moderately educated, nor merely of the well educated, but the average of the thorough, the well, and the moderate—all, in education, skill, diligence, etc.:' and to this must be added—with allowance for particular circumstances of position, whether urban or rural, near a centre of population or remote."

Dans *SEGUIN vs. D.*, l'Honorable Juge Surveyer, de cette province, a libéré un dentiste lorsqu'une dent est tombée dans le poumon pendant que le patient était sous l'effet du chloroforme, et a décidé comme suit:

"Considérant, quant au second grief, que la perte d'une dent, qui n'est pas un événement anormal, n'est pas non plus un événement alarmant, puisqu'il y a dix-neuf chances sur vingt que cette dent se soit introduite dans l'osophage, auquel cas elle est évacuée normalement; que la toux du patient après l'opération n'est pas un indice que la dent perdue se serait logée dans son poumon, cette toux se produisant dans la plus grande majorité des cas, causée par l'anesthésie, du sang dans la gorge, l'énervement, etc.,

Considérant que des demandes analogues ont été repoussées par des tribunaux canadiens (*DANGERFIELD v. D.*, 17 W.L.R., 249, 253; *McTAGGART v. P.*, 1927, D.L.R., 1, 28) dont les décisions peuvent servir de raison écrite et dont la première a de fait servi de guide à un de nos magistrats (*CHAGNON v. C.*, 68 C.S., 185); que Fuzier Herman Rép. Vo.

Dentiste, No. 106, semble poser une règle plus sévère, mais qu'il s'appuie exclusivement sur des décisions anglaises et américaines trop sommairement rapportées pour être convaincantes, et qui ne sont peut-être que des instances où les tribunaux auraient refusé d'intervenir dans des verdicts de jury; que la décision rendue dans *PINCOVSKI v. T.*, 36 R.L., n.s., 327, a été frappée d'appel suivi d'un règlement qui est virtuellement un désistement; qu'elle repose sur des chefs de négligence non articulés dans la présente espèce, et sur l'absence d'un barrage dont l'existence a été affirmée dans la présente espèce; que la présomption de faute résultant de l'introduction d'une dent dans la gorge du patient a été repoussée non seulement dans la décision de *McTAGGART v. P.*, précitée, mais aussi dans la doctrine et la jurisprudence françaises:—
"Il convient d'observer que la survenance d'accidents ou de complications ne peut à elle seule faire présumer en faute le . . . dentiste."

Le juge se lisant comme suit:

"La présomption de faute résultant de l'introduction d'une dent dans la gorge du patient peut-être repoussée par le chirurgien-dentiste, s'il prouve qu'il a pris toutes les précautions pour éviter ce risque inhérent à la pratique de la chirurgie dentaire, et qu'il a traité son patient suivant les règles de l'art avec précaution et prudence.

La survenance de l'accident ou de complications dans l'extraction des dents ne peut à elle seule faire présumer en faute le chirurgien-dentiste."

GAGNON v. C., Feu l'Honorable Juge Mercier, a décidé:

"Aucune responsabilité ne s'attache au chirurgien-dentiste qui pratique une extraction de dents lorsque le réclamant ne peut établir que la faute imputée à sa charge est telle qu'un dentiste doué de l'expérience, de la science et de la prudence normales, ne l'eut pas commise."

Une cause qui va peut-être un peu loin est celle de la province d'Ontario dans *BOSSE v. P.* Il y eut mésentente entre le patient et le dentiste, le premier croyant devoir se faire enlever une seule dent, le dernier les lui enlevant toutes, après l'avoir endormi. Il a été décidé, par le juge en Chef Mulock, comme suit:

"Following the plaintiff's reference to this opinion of Dr. McDonagh, the defendant examined the plaintiff's mouth and then saw the condition of the teeth and must have realized that the plaintiff's health demanded their immediate removal. These two circumstances, I think, caused the defendant not unreasonably to assume that the plaintiff desired their removal, whereupon he did what was in the best interests of the plaintiff; nevertheless he seems to have misinterpreted the plaintiff's instructions and thus committed an actionable wrong. It caused no damage to the plaintiff but on the contrary was a benefit to him, and if he were entitled to maintain this action he would, in my opinion, be entitled to merely nominal damages."

Dans *DRIMER v. D.*, nous trouvons enfin un dentiste qui n'a pu se sauver, mais le malheureux avait brisé 17 dents à son patient.

Dans *PINCONVSKI v. T. & J.*, le dentiste et l'anesthésiste ont été trouvés conjointement et solidairement responsables parce qu'une dent s'était logée

dans le poumon. Il est bon de noter que cette cause a été réglée après avoir été inscrite en appel.

Dans ST-ONGE v. B., nous lisons:

Les faits: A cause des difficultés survenues lors de l'extraction des dents de la demanderesse, le dentiste savait qu'il s'était brisé des dents et pouvait prévoir qu'il devait rester quelque chose dans la mâchoire, tout en ignorant ce que c'était et où c'était, et il reconnaît

même que cette extraction de dents a occasionné un accident qui a amené des troubles graves.

JUGE: Lorsqu'à la suite d'une extraction de dents, il y a lieu d'appréhender un danger d'infection, le chirurgien-dentiste commet une faute qui engage sa responsabilité, s'il néglige de suivre les règles de son art, dans l'espèce, en ne recourant pas au procédé de la radiographie."

(à suivre)

Saoulerie

Je n'ai guère de souvenirs plus affreux de ma longue vie en Amérique, que celui de l'ébriété des alcools de grains et des cocktails. Il y avait quelque chose d'odieux dans ces beaux jeunes gens, qui proclamaient furieusement: "Come on! We'll get drunk tonight." Ce "Viens! On se soulera ce soir", avec toute la force volitive de l'auxiliaire "will", est une insulte à la vie. Il ne s'agit pas de cette ébriété légère pour laquelle la langue provençale a créé ce joli verbe: s'ensigala "se mettre chantant comme la cigale," et qui exprime si bien la gaieté de nos vins. Il s'agit d'une de ces joies brutales de la goinfrerie, d'un jeu de suicide. Car, se donner le plaisir de rouler ivre mort sur la table, privé de tout sentiment, c'est un peu se donner la mort. Une mort brève, sans doute, et dont on renaîtra. Une mort tout de même.

"L'ame du vin."

M. CONSTANTIN-WEYER.

Une faute grave

Fausser des statistiques pour faire croire à l'efficacité du traitement que l'on préconise est presque criminel. En effet, rares sont les moyens de guérir dont on peut garantir l'infailibilité par la théorie pure; il faut l'expérience. Et l'expérience se mesure par des statistiques. Or celui qui par des statistiques truquées trompe la bonne foi de ses confrères peut commettre une malhonnêteté. Sur l'autorité du fumiste et de ses statistiques ils appliquent une méthode ou un traitement qui s'avère nuisible ou même seulement inefficace, ils auront causé au patient un tort dont le falcificateur est formellement responsable.

A. THIBAudeau.

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1938-1939

PRESIDENT

Stephen A. Moore.....London, Ontario

PRESIDENT-ELECT

W. W. Woodbury.....Halifax, N.S.

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

Stephen A. Moore (Chairman).....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
W. H. Woodrow.....Brockville, Ontario
R. L. Pallen.....Vancouver, B.C.
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

Stephen A. Moore (Chairman).....London, Ontario
R. L. Pallen.....Vancouver, B.C.
C. M. Fletcher.....Lethbridge, Alberta
G. L. Cameron.....Swift Current, Saskatchewan
M. H. Garvin.....Winnipeg, Manitoba
W. H. Woodrow.....Brockville, Ontario
G. L. Prestien.....Galt, Ontario
Edward T. Bourke.....Montreal, Quebec
Ernest Charron.....Montreal, Quebec
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. A. McMurdo.....Summerside, P.E.I.

CHAIRMEN OF COMMITTEES

Dental Legislation.....J. Stanley Bagnall, Halifax, N.S.
Dental Health.....Harry S. Thomson, Toronto, Ontario
Dental Education.....A. D. A. Mason, Toronto, Ontario
Public Relations.....J. S. Lapp, Toronto, Ontario
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Canadian Army Dental Corps.....Ira Hamilton, Ottawa, Ontario
Journal.....To be appointed
Research.....Andrew J. McDonagh, Toronto, Ont.
Benevolence.....To be appointed
Ethics.....G. L. Prestien, Galt, Ontario
Indian Affairs.....Howard MacDonald, Saint John, N.B.
Constitution and By-Laws.....Robert Leslie Pallen, Vancouver, B.C.
Nomenclature.....Gerald Franklin, Montreal, Quebec
Insurance.....A. E. Higgins, Toronto, Ontario
Necrology.....C. M. Fletcher, Lethbridge, Alberta
Archives.....J. Stanley Bagnall, Halifax, N.S.



TOWERING PEAKS AND TROPICAL FOLIAGE. The variety of this New Zealand scene is possibly its greatest charm. Here is beautiful Lake Manapouri.

—Photo courtesy New Zealand Trade Commissioner.
Reproduced by kind permission of "Saturday Night."

"To be glad of life because it gives you the chance to love and to work and to play and to look up at the stars; to be satisfied with your possessions but not content with yourself until you have made the best of them; to despise nothing in the world except falsehood and meanness, and to fear nothing except cowardice; to be governed by your admirations rather than by your disgusts; to covet nothing that is your neighbour's, except his kindness of heart and gentleness of manners; to think seldom of your enemies, often of your friends, and to spend as much time as you can with body and spirit in God's out-of-doors. These are little guide posts on the footpath to peace."—HENRY VAN DYKE.



THOMAS R. MARSHALL, D.D.S.,

Toronto, Ontario.

Ontario Editor of the Journal of the Canadian Dental Association since its inception.

Member of the Academy of Dentistry, Toronto,
Executive Committee, 1928-34.

President of the Academy of Dentistry, Toronto,
1932-33.

Convener of Welfare Committee of the Academy,
since 1935.

Member of the Public Dental Health Committee of the
Ontario Dental Association and Toronto Academy
of Dentistry.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

VOL. 4

TORONTO, NOVEMBER, 1938

NO. 11

Dentistry for Children of Pre-School Age*

by THOMAS R. MARSHALL, D.D.S., Toronto, Ontario.

THE late Thomas A. Edison was once asked what he considered the greatest machine in existence, to which he replied, "The brain and soul of a little child." That, I believe to be a significant statement; indeed, to me as a dentist, observing a rapidly growing interest by our profession, in "dentistry for children," this thought provokes a question. Are we, as dentists, realizing that we have been concentrating our efforts in the wrong direction? It is true that restorative and prosthetic dentistry will always demand the keenest study and application to meet the problems presented by the ravages of dental disease, but have we begun early enough to fight the incidence of such disease? Someone has said, "The depression was a God-send to dentists, because they have had time to think of children in their practice."

There is one great difference between a tradesman and a professional man and that is, the tradesman gives the public what he thinks they want, while a professional man should give the public what they should have, and educate them to want it. Let me put it another way, for emphasis. It is our job,

as dentists, to direct the demand for, as well as perform, dental service. It will not do to show interest in the dental health of children in the days of financial stringency and forget about it when our adult practice increases in boom days. Let us concentrate our thinking and our efforts towards the practice of preventive dentistry, in the sense of minimizing the occurrence and effects of dental disease.

Preventive dentistry always had a very vague meaning to me until a few years ago. I hope none of you ever had my conception. I used to think of prevention as prohibition and I could never understand how dentists could hope to prohibit the occurrence of dental caries or any other dental disease for that matter. While talking about dentistry for children, this remark was recently made, "I want you to understand that I mean control of dental disease when I say prevention." You and I know that prevention in the sense of prohibition is an ideal but not, as yet, a practical one. Prevention, in the sense of control, is a practical possibility if we apply ourselves, and it is with this thought in mind that I want to discuss with you, dentistry for the pre-school child.

*Read before the Montreal Dental Club, February 18th, 1938.

Within the last few years we have changed the wording of the subject titles in our dental discussions of service for children. It used to be "Children's Dentistry" all the time. It was a happy thought when someone changed this to "Dentistry for Children." It is more dignified for one thing; but more than that, it seems to assume that there is a branch of our service, especially dealing with the dental health of children, that has different aspects to all other phases of dental practice. Those of us who have families, know how children like to play at "make believe." "Children's Dentistry" sort of implied "make believe" dentistry, and when I recall some of my work on deciduous teeth, I realize only too well that it was children's dentistry all right. Cement fillings; copper amalgam fillings in proximal cavities (one filling for two cavities); silver nitrate dentistry, arresting caries in large open cavities without even attempting a filling; then all the grief that follows such practice including the parent's resultant attitude—"I'm just tired taking Junior to the dentist, the fillings don't seem to stay in his teeth but I guess they're only his temporary teeth anyway and he'll soon be losing them." The newer terminology, "Dentistry for Children" does imply a new viewpoint, the turning over of a new leaf, a new significance given to the treatment of our child patients in our efforts to help them build an efficient, healthy and good-looking permanent dentition.

There are two phases to consider in bringing about this new concept of dental service for children. First, educating the parent to appreciate it to the point of subscribing to it. Second, convincing ourselves, if we have been guilty of practising children's dentistry as such, that the practice is wrong and unworthy of our ideals, and that from today on, we are willing to prepare ourselves to place

this branch of our service on a par with any other.

There are those who say that the correct practice of dentistry for children, is a specialty of its own. So is exodontia, yet I am confident you will agree that splendid service is being rendered every day in this field by the dentist in general practice. There must always be the specialist, and thanks to him, he is always teaching us something new, but the rank and file of children will always depend upon the general practitioner, for their dentistry. We must see to it, however, that we who are in general practice, acquaint ourselves with the most efficient methods of dealing with our child problems, in order that we may be able to render the service in a creditable manner.

In a recent survey of public opinion towards dental service, conducted by the Toronto Academy, this was one of the questions asked, "Are your children getting all the dental care they need? If not, why?" Two replies in widely separated communities were—"My dentist does not believe in filling baby teeth." My purpose in mentioning this, is to introduce the question—What value are deciduous teeth to the child? Are they of sufficient importance to merit our attention, or have the above quoted dentists a just and adequate reason for their attitude?

Here are a few suggestions as to the value of deciduous teeth—

1. The most apparent value is, that they serve for masticating the food for about 1/5 of the average span of life and during the period of greatest growth.

2. Deciduous teeth, maintained in health, predispose the child to better mental and physical health.

3. Dr. Gerald Franklin in the *Journal of the Canadian Dental Association*, April, 1937, makes these comments—

- (a) Deciduous teeth control the posi-

tion of the first permanent molar, the key stone of the arch.

- (b) Deciduous teeth control the occlusal plane of the succedaneous teeth.
- (c) Growth impulses throughout the alveolar arches and their basal bones depend on an intact, deciduous denture for their complete expression.
- (d) There is no space maintainer quite as satisfactory as the deciduous tooth itself.

4. A well cared for deciduous dentition predisposes the individual to a better permanent dentition.

Assuming then, that deciduous teeth are worthy of our attention, that we discuss our procedure according to the following plan—

- 1. Proper reception of the patient.
- 2. Proper method of examination.
- 3. Parent education.
- 4. Operative procedure.
- 5. Space maintenance.
- 6. Maintenance of teeth in health.

I would have you bear in mind that our average child patient is from 3 to 5 years of age. It is true that a presentation dealing with the pre-school child should include the child from birth, with perhaps some pre-natal theories. In this instance, I am anxious to give only facts, as I know them and I must admit in my experience that the pre-school child who comes to the office is from 3 to 5 years, with few exceptions. In all our work for children, I like to remember these points—

- 1. Whatever we do, it must be practical for both dentist and child.
- 2. It must be done properly, so that it will not need to be replaced constantly.
- 3. It must be done in shortest possible time, so as not to over-tire the patient.

4. Always accomplish something at each visit. Your failure to do this is an acknowledgment of your inability to manage the child, and future successful treatment will be more difficult.

5. Never miss an opportunity to genuinely praise a child for good conduct.

A parent always brings a child to you for one of two reasons, possibly three.—

1. The child has a cavity or a sore tooth and needs immediate service.

2. The parent is just anxious to have the child's teeth examined to be sure that everything is as it should be.

3. Occasionally a parent brings a child to seek advice concerning a habit which the parent knows to be wrong, or to enquire about the unexpected position of an erupting permanent tooth.

Of course the first thing we must do is to deal with the complaint that brought the patient in—if a simple cavity, which can be prepared and restored in a short time, I usually complete the service at once. If I have not the complete co-operation of both parent and child I might complete the cavity preparation only, then dry, medicate and place some such filling as Silvodont or as McBride suggests,* Zno. mixed to a heavy paste with eugenol, to which is added a trace of Agno^s powder, just before insertion in the cavity. In this connection, please remember this, never to place any filling material in a child's tooth which you are not very sure is still going to be there when he makes his next visit to your office. If the child has several quite large open cavities, it might be well to remove gross decay from all with an excavator, at the same time getting sufficient undercut to retain a filling, then after suitable medication, insert silvo-dent and leave in until you are ready, at some future date, to deal with each tooth properly.

*Zno must be of purest form, and as near as possible arsenic free.

In making an examination of a child's teeth, I like to satisfy myself and the parent that I have not missed anything. A complete set of 10 No. 0 dental films of the entire mouth is splendid but perhaps not the best immediate parent psychology. It's a bit annoying to a young child too, and not entirely necessary in most cases. I am content with one No. 0 dental film made into a bite-wing for each side of the mouth and a regular film of the upper anterior. This procedure is recommended by Dr. McCall of the Guggenheim Clinic of New York. The inter-proximal x-rays of the molars indicates the presence of caries, the depth of the lesion and the presence or absence of the bicuspid teeth. The radiograph of the upper anterior demonstrates the presence or absence of permanent laterals and determines the presence of supernumerary teeth. From this point, I would suggest that our examination proceed as follows:

1. The date, and year of birth are always important for reference.

2. General health picture with brief history from birth, e.g. Was the child as a baby artificially fed? If the child is in apparent good health now, was it always that way? Did it ever have any serious illness—If so what? Are tonsils and adenoids normal? Has the child a good appetite? If not, why? What foods does he eat best and most of? While asking these questions and others that may seem pertinent to the particular case and making your observations as notations, it is surprising how well you get to know both parent and child.

3. The next thing I examine is the normalcy of arch development for the age. 1. If the child is 4 years of age, some separation should be apparent in the incisor region, at 5 years this should be quite marked. It has been said that there should be sufficient space between the incisors to place a thin dime. If

you want to be more accurate, measure the distance from the mesial of cuspid to distal of second molar, subtract one millimeter and you should have the measurement from mesial of the cuspid to the mesial of the cuspid on the other side. (Ref. *Journal Dental Research*—J. L. Porter, 1931) 2. Now observe the frenum labium; is it producing excessive separation between the central incisors? 3. Observe the general occlusion of the teeth. If normal, make note to that effect; if abnormal, record abnormality; discover if possible what is the cause; suggest, if you can, ways and means of removing the cause and be sure to make your corrective suggestions positive and not negative. Let me explain—just a short time ago, I had a child in the office, a neurotic child, who among other things sucked his tongue and bit his lower lip, so that his upper incisors protruded labially and the lower incisors contacted deciduous 1st molars; he also had a short upper lip. I would have accomplished very little by telling him not to suck his tongue and not to bite his lip, but I hope to accomplish more by asking him to pull down his upper lip against his upper teeth so as to stretch it and make it grow longer in order to hide these teeth. My point is, I have substituted something for him to do, for something I did not want him to do. Casts of a pre-school child's mouth are a valuable record for comparing later development of the arches and eruption of the teeth.

4. Now finally, we are ready to make our clinical findings with the aid of our dental radiographs.

- (a) Note the absence of normal developing permanent teeth.
- (b) Note the presence of supernumerary teeth.
- (c) Record presence of caries on each tooth with anticipated needed treatment.

Having completed a thorough examination, you are prepared at least to make a reasonably accurate diagnosis of existing conditions. This you present to the parent, together with your proposed treatment. This phase of our subject should be given considerable study in order that we may give parents a true conception and appreciation of the value of our proposed service. Failing to do this, after all your trouble and sincerity of purpose, it is possible that the parent may not acquiesce and the case is lost. I cannot dwell on this aspect, except to say that we have taught parents to think of deciduous teeth as baby teeth, or worse, temporary teeth; we have placed cement fillings in cavities without preparation, even without removing all the decay; if a tooth ached, we extracted it—it's only a temporary tooth anyway. Such in many cases is the present parent conception, but now you are suggesting the same care for the child as for the parent, pointing out real reasons for saving these deciduous teeth, as previously mentioned in this paper. The parent might not get your point of view at first, may even surmise that you are not as busy as you would like to be, or as their previous dentist was, and that your motives are mercenary, and so let me repeat, give the parent education phase of dentistry for children some real thought and study, then proceed cautiously.

PROPHYLAXIS

When the original reason for the patient's first visit to the office has been attended to, our examination completed and our proposed treatment presented to the parent, our next procedure is a thorough prophylaxis. This is done for at least two good reasons.

1. The child's mouth is made clean and pleasant, and many subconscious fears of what the dentist might do to a little child are dispelled.

2. To accustom the child, in a simple manner, to dental instrumentation. In beginning a prophylaxis it is suggested by the Guggenheim Clinic Manual, to double a cotton roll, clamp by a suitable pair of pliers, dip in a 50% solution of peroxide of hydrogen and sponge all teeth and gums to remove gross debris and deodorize the oral cavity, as the first step. Follow this with scaling and thorough polishing, finally going between the teeth and polishing below the contact points with dental tape.

OPERATIVE TREATMENT

Perhaps the degree of progress of dental caries can be classified for purposes of operative treatment as follows:

- (a) Caries not through the enamel.
- (b) Caries involving the dentine but not close to the pulp.
- (c) Caries involving the pulp or close to it.
- (d) Non-vital teeth.

In the treatment of the first classification in molar teeth, I would like to direct your attention to the recent work of Prime of Omaha. Thoroughly cleanse the area, if interproximal, use tape and prophylaxis paste, then wash with tepid water. Isolate with cotton rolls, and dry with warm air; slip some dental floss between the teeth below the contact point; carry a drop of Howe's Agno³ solution in the beaks of the pliers and deposit about the contact point and the dental floss. Pick up the ends of the dental floss and apply the silver nitrate by a slight bucco-lingual motion of the floss against the proximal surfaces of the teeth effected by caries of the enamel. Repeat the application if necessary and continue for about 3 minutes, then precipitate the silver by use of eugenol, applying in a similar manner. Dr. S. A. MacGregor and Dr. Glen Mitten of Toronto have been testing the efficiency of this treatment in the last year by tak-

ing a number of children and making the application on one side of the mouth only, using the other side as a control. They are not yet ready to report their findings in full, but are enthusiastic about the possibilities.

In teeth with caries involving the dentine, no matter how slight, I would suggest operative treatment, eradicating the decay and placing a metal filling in a properly prepared cavity. In order to make a proper cavity preparation, we must first familiarize ourselves with the anatomy of the tooth. I shall take this for granted, taking the liberty of pointing out only one or two important features.

1. The very large pulp in deciduous teeth.

2. The mesial horn of the pulp in the second deciduous molar is closer to the mesial surface than the distal.

3. At the gumline on the proximal of deciduous molars, the thickness of dentine between the pulp and the proximal tooth surface is usually not more than the thickness of a dime.

In cavities involving the occlusal only, I like to open the cavity with a No. 701 taper fissure burr, following with a No. 32 S.S.W. mounted stone and cutting back all overhanging enamel. Decay is then thoroughly removed with a sharp spoon excavator. When all apparent decay is removed, Bodecker has shown that the contiguous dentine is infected and should be well sterilized. No doubt there are several methods, but phenol applied to the cavity, previously dried with cotton but not warm air, is very efficient; neutralize this with a sparing application of alcohol, then follow with an application of gum benzoin-Canada

balsam varnish* to which thymol has been added. Dry the varnished cavity with warm air. Unless the cavity is quite shallow, insert a cement lining as well as the varnish to protect the pulp from the thermal shock of the final silver amalgam filling.

Probably the most common cavity in deciduous molars occurs on the proximal, just below the contact point. The type of cavity preparation will be determined by the type of the restoring filling. For example, Dr. Willett suggests a technique using inlays for deciduous teeth and I feel that this is a practical and efficient method. It has the following advantages—

1. The preparation of the cavity permits better extension of cavity margins to self cleansing areas.

2. The cavity preparation is quite painless and quickly done.

3. A cast metal filling is superior to amalgam in preserving the tooth.

4. Children's inlay metal, known in the dental depots as C.I. metal, is inexpensive and quite efficient.

5. A lining of cement between the metal filling and the dentine in deciduous teeth has a decided advantage in that it prevents thermal shock.

6. If proximal cavities occur in adjacent teeth, as they frequently do, both cavities can be prepared and restored simultaneously.

The only *disadvantage* known to me, is that it takes more of the operator's time, but even this can be overcome by slightly increased compensation.

If silver amalgam is the filling material of choice, one must prepare a step cavity in all cases except, perhaps, the mesial of the upper 1st deciduous molar. Begin

**Gum Benzoin—Canada Balsam Varnish*: formula by Dr. Harold Clark, Toronto.

Pulverize gum benzoin in a mortar, put through a sieve and dissolve in chloroform. Dust and dirt in gum benzoin is then separated from the clear gum. Put in enough chloroform to make a stiff gum the consistency of molasses or Canada Balsam as bought, which is clear. Add Canada Balsam, equal parts, to gum benzoin. To both, add thymol 1 part in 10. Then thin with chloroform to desired consistency as needed.

the preparation on the occlusal of the tooth where you desire the extremity of the step to be, (always near the centre of the tooth) by sinking an inverted cone burr No. 35, the desired depth of the cavity, about 2 mm. Follow with a larger inverted cone No. 37 and cut towards the proximal into the cavity; follow with fissure burr No. 558, cutting dove-tail on step, trimming the proximal walls and squaring the seat of the cavity; follow this with No. 32 S.S.W. cylinder mounted stone, widening the step and sloping all walls toward the occlusal slightly. Using a No. 4 round burr, remove all decay at the cervical surface angle and rounding the bucco-cervical and linguo-cervical angles at the seat. Finally using spoon excavators, remove decay from the pulpal wall.

In placing a silver amalgam filling in a proximal cavity, always use a matrix, my choice being the Ivory No. 8 or the Wagner band matrix holder using stainless steel banding, gauze 36. Cut your banding the desired length and width from the strip. I also frequently use a copper band fitted over the tooth tightly and adapted to occlusion, inserting a little wooden wedge at the gingival to ensure tight contact at the cervical. This band should, of course, be left until the following day before removal. Otherwise the filling will be destroyed. This copper band has a particular application with a child who does not co-operate very well, and for whom it is difficult to keep the matrix in place.

In preparing the cavity for a filling, we would medicate as in the case of the occlusal cavity previously discussed, using gum benzoin varnish. If the proximal depth of the cavity is more than twice the thickness of enamel, a cement lining in addition is indicated. McBride advocates a film of Fleck's Red Copper cement spread thinly over the proximal wall and allowed to set about 3 minutes,

when the amalgam may be inserted to complete the filling.

In dealing with deeper cavities, not involving the pulp, prepare the cavity ready for the insertion of the metallic filling, cutting the step, the gingival seat, trimming proximal walls and removing all decay. Instead of placing the permanent filling, after proper medication, place a filling of zno and eugenol. Leave this for one week, then remove outer portions and place an amalgam restoration as a sort of metal veneer. The zno and eugenol becomes quite hard and is an excellent cavity lining.

Having placed an amalgam filling in the distal of a lower 1st deciduous molar and sometimes in the mesial of the lower 2nd, how often have you had your patient return with a cracked filling, or in a month or so the filling broken out? If you would avoid this, grind the sharp lingual cusp of the upper 1st deciduous molar. This cusp often does much damage to our amalgam restorations in the lower opposing teeth.

For the filling of choice in cavities in the distal of cuspids, I would favour a lingual step preparation and silver amalgam. Too often these cuspids have small cavities in evidence and we are prone to think them unimportant. The cuspid however should be retained until after the loss of the 1st deciduous molar and its retention is most important in promotion of normal arch development.

When a child presents himself having had tooth-ache, caries has usually involved the pulp, whether there is an exposure or not. In some instances you may place a medicated sedative filling such as zno and eugenol and make the tooth comfortable, but usually in the course of a few months, pulp death ensues. In cases of vital pulps when exposed or nearly exposed in a healthy child, pulpotomy is the treatment of choice. The method I have employed has given

me success over a period of about four years; it is not original and I do not know exactly where I got my idea but here it is.

1. Gross decay is removed and eugenol is sealed in cavity with a good temporary cement for 3 or 4 days.

2. The tooth is then anaesthetized with a local anaesthetic. It is isolated with cotton rolls and painted with 2% iodine, the pulp is exposed and the pulp chamber opened widely with a large round burr, exposing the entire floor of the coronal pulpal cavity. All the bulbous portion of pulp is removed, hemorrhage is controlled by using phenol, followed by peroxide of hydrogen and the following paste flowed over the pulp stumps and floor of the pulp chamber. Place a portion of Kerr root canal sealer powder and liquid on a glass slab. Select a crystal of metallic iodine, about one-half the size of a flax-seed, dissolve this in a tiny drop of alcohol. Bring the Kerr liquid into this and then the powder. Having placed the paste in the pulpal cavity, make a thin mix of a good cement and apply a layer to seal in the paste without pressure. Insert metallic restoration over this. I find this method is more effective than any method of pulp capping I have tried, and while, perhaps, it is not always as successful as one would like, yet it is a conservative and practical method of dealing with advanced caries in a vital deciduous tooth.

I hesitate to break into the subject of non-vital teeth with infected pulps. I am aware that there are those who extract all such teeth and can show good reason for doing so. I am also aware that there are those who treat these teeth and state they can save 80% of them, and can also give good evidence of reasonable success. Personally, I prefer to be a little conservative, you might even say, radical, because I would extract most of these

teeth with non-vital pulps. I would extract—

1. Any non-vital tooth in a child whose general health was below par.

2. Any non-vital tooth showing evidence of apical involvement.

3. Any non-vital tooth of which the clinical history or appearance indicated pulp death for some months.

4. Any non-vital tooth where a permanent successor is absent.

I would try to treat a non-vital deciduous tooth when—

(a) All the above conditions were favourable, particularly if the pulp has just a slight sensation.

(b) Especially if the tooth in question were a second deciduous molar and the 1st permanent molar had not fully erupted.

SUMMARY OF TREATMENT

1. Open pulp chamber widely, wash, dry and seal in the cavity with cotton moistened with formo-cresol, using a good temporary cement. Leave 48 hours.

2. Then isolate the tooth, sterilize the area with 2% iodine, open pulp chamber, open gingival third of the root canals and broach out debris thoroughly. Work into this third, a little formo-cresol, then seal in cotton moistened with the same drug using a good temporary cement. Leave 48 hours.

3. Isolate the tooth and sterilize the area. Open up the tooth and remove the dressing, wash with peroxide of hydrogen and dry with alcohol. With a smooth broach work into the gingival third of root canals Kerr pulp sealer, to which a little metallic iodine has been added (as described above). Flow an excess into the pulp cavity and with a piece of unvulcanized rubber gently force paste farther into root canals. Cover with a good cement and finally place metallic restoration.

When deciduous molars are lost in

a child under 6 years of age, which is the scope of this paper, I believe the space should be maintained by placing a fixed appliance, in nearly every instance. When a 2nd deciduous molar is lost it is imperative to hold the permanent 1st molar from drifting forward. In making these appliances, I believe we will have better success if we make our tooth attachments out of cast metal—the onlay type. So often we become discouraged in placing space maintainers, using orthodontia bands as the attachment on the tooth, because in the hands of the average dentist, these are off as much as on; but if you make a casting, preferably of palloy or multicast alloy, you will meet with better success. It is a little more trouble at the beginning, but is worth it. If one is going to employ an appliance to maintain the space of an extracted tooth, insert it immediately after the tooth is removed, that is, within a week; do not leave it for a time and allow drifting of the teeth effected, in which case some of its usefulness would be lost.

The final phase of our discussion has to do with maintenance of the teeth in health. In this connection, much can be said about home care—proper brushing of the teeth, the avoiding of improper habits, diet, regular rest and so forth. In regard to brushing, in case of a young child, if the parent does not do it, then it has no value except that it teaches the child a good habit. In regard to diet, certain fundamentals are necessary—but I must not take time to discuss them. If you want to read a good article on the subject, see *Journal of the American Dental Association*, January, 1938, "Diet in Childhood" by Dorothea Radosch. To me, the subject is presented briefly and simply, and yet in a common sense manner. Spend an evening with it before your fireside.

So much for home care, what now?

When we have finished our operative procedures and our patient's mouth has been restored as far as we are capable, to health, comfort and function, and provision has been made for proper space maintenance, the parent is usually at the point of greatest appreciation of service rendered, and will often ask when the child should be brought in for further attention. May I suggest that you adopt this plan, not only for your child patients but also for adults. The plan was suggested by Dr. Harvey W. Reid, Toronto. You have completed your services for the patient, that is, you have satisfied the present needs. I suggest that you say to the parent, "Mrs. Jones, I would be glad to assist you in taking the very best care of John's teeth, and in order to do this, I want him back in four months' time. I shall give you an appointment for him now, four months from today at 4.00 p.m. and the nurse will give you a call a week before your appointment to remind you of it." At first the parent may smile and think that is a long time ahead to make a dental appointment, but this new gesture will impress the matter on the parent's mind. In four months' time, less one week, the nurse calls Mrs. Jones, "Mrs. Jones, this is Miss White of Dr. Smith's office, calling to remind you of the appointment you arranged for John at your last visit to our office. John's appointment is one week from today at 4.00 o'clock. I hope that will be convenient?" This method of recall actually works very smoothly in 95% of instances. It keeps you in constant contact with your patient, so that you can actually practise preventive dentistry. It gives you a continued interest in your patient, and an appreciation of that interest by the parent who realizes just as much as you, how easy it is to procrastinate. Furthermore, it is a professional method of following up our service to our patients.

In closing this discussion, I want to acknowledge that nothing new or even original has been presented. An anonymous philosopher has said, "We need to be reminded more than we need to be educated." So, with the background of limited experience, I have tried to review, with you, some phases of practice for the younger child. May I presume to recommend it for your consideration as a stimulant for thought, in the hope

that our child patients will have a better opportunity for developing good teeth, and in the hope that as you and I grow older, when our child patients of today come to us as adult patients of tomorrow, we will have the satisfaction of feeling that we had a part in helping them develop better teeth, and of helping them enjoy greater dental comfort and better health.

Temple Building, Toronto.

Nutrition Today With Special Reference to the Vitamins*

by CHRISTIAN P. SEGARD, M.D., Madison, Wisconsin, U.S.A.

TWO statements have appeared frequently in medical literature which warrant more careful study before acceptance. The first of these, namely, that food selection may be left, in a large measure, to adults, can be disproven at any eating place, anywhere, for men and women do not select their own dietary with ease.

Mankind has made many mistakes, and his errors in dietary regulation are very convincing. The excess of carbohydrate in the diet is a good example of poor selection. Holdane says "Man must use his reason to arrive at an appropriate diet . . . Humanity is engaged in the awkward passage from an instinctive to a rational choice of food." Our reasoning ability has not yet replaced our former instinctive selection, and it will probably be many decades before it does. In the interim, guidance is required from some source. The pediatrician guides for a few years then the dental surgeon and

the physician take up the task. Maybe the geriatrician should begin earlier rather than wait till sixty years of age.

The other statement, just as erroneous, is that on a varied diet most people get all the mineral elements and protective food factors which they require. Sherman and McCollum have been repeatedly quoted in medical and lay literature as saying that calcium deficiency is exceedingly common. It has been shown that it is improbable that anyone secures enough calcium without milk or its by-products being included in the daily diet. If people cannot, or will not, regulate their diet to secure sufficient of an easily measurable mineral constituent, calcium, they certainly will not secure the proper amount of other factors more difficult to secure and more difficult to measure, such as the vitamins.

Mankind is not self-regulatory in his diet. He does not even want to be bothered with more than one bowel move-

*Read before the Ontario Dental Association during its Convention in May, 1938. It was presented under the auspices of the Public Dental Health Committee of the Association.

ment a day. His reason tells him one thing, while his taste and his appetite tell him quite another. Even the society of which he is a member may dictate food selection. Some force other than self-discipline must present itself. We have the same situation in some diseases.

Syphilis is a communicable disease; the causative agent and its manner of transmission are known; we know effective methods of cure, yet the disease continues. We know many things about diets that would, if used, prove beneficial to mankind, yet mankind continues to secure information from food faddists and quacks. They listen to or take advice from a Hollywood star rather than Orr, McGarrison or Sherman. Instinct, appetite, and emotional appeal are not reliable guides today, and the public pays far more for misinformation than it does for public health service. The lack of resistance of the population attacked by infectious disease is as much responsible for the high mortality of an epidemic as is the virulence of the infective agent, and this lowered resistance can be traced frequently to a lack of protective foods. What the organism cannot synthesize must be present in the diet. According to the League of Nations (1) "It is abundantly clear that in no country does the whole population attain the standard scientifically desirable in the interest of health. Numbers of persons are insufficiently fed, but a large number are badly fed." Freak dietary systems will always be with us.

So ignorantly has mankind made his choice of food that his deficiency state looks permanent. What we call normal today may be a persistent deficiency state which has become established in the organism. This seems particularly true in the case of teeth. Although teeth are the most permanent organic structure known, yet they decay with astonishing frequency in the human body. The

human mouth and teeth have become the foci of infections which undermine the entire bodily health.

"Evidence shows that dental disasters of today are largely due to deficiency of minerals and vitamins in the body," states Howe.

The regulation of diet in pediatric practice has given excellent results, as has also regulation of the diet in prenatal care. The parent, however well she may regulate the infant's diet, is usually not so particular about her own. The same mother who consulted the family pediatrician and used Holt as her guide, will go on a "Hollywood" or "tea and toast" diet on the advice of the neighbour's maid. Such is the stuff of which humans are made. The Hog Breeder's Manual on how to breed and feed hogs has passed its 20th edition. Sherman on "How to Feed Humans" has passed its fourth edition. Yet, "The newer knowledge of nutrition is, I am convinced, the greatest advance in medical science since the days of Lister," states Sir Robert McGarrison. "When we apply the principles which this new knowledge has to impart—then will this knowledge do for medicine and dentistry what asepsis has done for surgery."

THREE STAGES OF NUTRITION

There are three stages in nutrition and each stage is highly important. These three stages are alimentation together with absorption, assimilation ending with utilization by cell structures and the third, excretion. The function or process of nutrition is dependent upon the efficient performance of these three stages. This being true, it brings out very clearly the fact that you are dealing with an organism and not an organ in the practice of dentistry. Our interest is in all three stages, but for obvious reasons I shall leave out the third stage and refer only

to definite features of the first and second.

There has been considerable advancement in our knowledge of proteins, fats and sugars, of which we need three-quarters of a ton annually. The mineral requirement of the adult human organism is about twelve pounds yearly. The optimum body requirement of calcium is one-half pound, and of phosphorus, one pound yearly, the daily requirement being .68 grams of calcium and a little over a gram of phosphorus. Bones and teeth require the larger part but soft tissues also need calcium and phosphorus. Because the body needs a continuous daily supply of a comparatively large amount of calcium and phosphorus it is of extreme importance to the dental profession to know its presence (quantitatively) in the diet. It is recognized that excess of magnesium interferes with calcium utilization, and excess amounts of iron interfere with phosphorus assimilation. Many adults, however, consume but a small amount of the calcium containing foods and use considerable phosphorus containing food. The result of this decreased calcium intake and increased phosphorus intake is that, continued over a period of time, the density of the bones, including the alveolar process will be greatly reduced and a pyorrhetic condition is inevitable, due to this calcium withdrawal. (2) Another important point is that the oxalic acid of green vegetables interferes with calcium utilization.

Recent studies extending over a period of years have shown that a very much lower level of iron intake is necessary in nutritional anemia as well as to prevent it. The work of Hart at the University of Wisconsin has shown that copper is the activator or catalyst, if iron is to be utilized in building haemoglobin. "The most important evidence that the original list of food factors is too exclusive, how-

ever, is the successful demonstration by the Wisconsin School led by Hart, Steenbock & Elvehjem, of the essential role of copper in the formation of haemoglobin."

(3) Copper has a definite function in which it cannot be replaced by any other element, and its presence is no longer regarded as accidental. The very close similarity in the copper and iron curves indicates their use for similar purposes.

"Iron and hematin have little value in the absence of copper, but when copper is given, the response with inorganic iron is superior to the response with hematin. Iron in the diet is stored in the tissue and the effect of additions of copper is to reduce the iron content of the tissue and increase the iron of the blood pigment."

(4) One-half milligram of copper and 15 mgm of iron is about our daily requirement.

No one questions the need of iodine in our diet. Its function is well known. The amount required by the adult is about 50 gamma daily (50 micrograms). The amount should be slightly higher for children, in pregnancy and in lactation. It need not be ingested daily since the body will store iodine. At the rate of 50 micrograms daily a gram is a life time's requirement.

It will be seen from the foregoing that our need is not the same for all food factors. It varies from a pound a year of phosphorus to a fifth of a grain per year of iodine. Yet each is essential if the organism is to round out a healthy life cycle.

REGULATING FACTORS

Four groups of regulating factors need to be considered. Two of them are endogenous, two exogenous. The hormones which regulate function and the enzymes that split complex food substances into simpler ones are endogenous. (One problem of these two is that our emotions so frequently control the output!) The two

exogenous factors are catalysts and vitamins. Catalysts accelerate change—they may even initiate change. Vitamins are food factors that control the utilization of other food factors. It is however, difficult, by definition, to keep these four groups separate. Sir Frederick Hopkins once called the vitamins exogenous hormones, and the hormones endogenous vitamins.

Vitamins are food factors, most of them of known chemical structure. Like the minerals, much is known of the function of each. From what is known it is natural to expect considerable variation in their use. Some of them are available in pure form and these have been used clinically in an effort to extend their sphere of usefulness into other fields. However a review of the work done leaves us with the general thought that "If a vitamin is essential to proper function of a definite kind of tissue in any organ, it is essential to the same kind of tissue anywhere in that organism and its sphere of action is limited to that tissue."

VITAMIN C

Vitamin C is a case in point. Without this vitamin there is a degeneration of collagen, the intracellular substance. The disease, scurvy, from which C is named anti-scorbutic, is caused by a breaking down of collagen which allows the blood to seep through the arterial wall into the tissues. The dental surgeon sees them as small petachiae on the gums. That is not the whole story. "The collagen of all fibrous tissue structures, the matrices of bone, dentine, cartilage, as well as the vascular endothelium is concerned in vitamin C deficiency." (5) Vitamin C, an oxidizing agent, causes collagen, a viscous liquid, to congeal forming the intracellular cementum. Fevers require a higher intake of C since it is so easily oxidized. Vitamin C excretions rise sharply with aspirin intake.

Apparently aspirin wastes vitamin C or diminishes its utilization by the body. (6)

There is a reason for the very favourable action of vitamin C on many apparently different conditions. Where there is intracellular substance collagen is the base and vitamin C is necessary. In reality many seemingly varied conditions center around collagen pathology. Pyorrhea was produced in test animals by vitamin C deficiency. The rarefaction of alveolar bone with widening of the periodontal membrane and tooth wandering and loosening was also easily demonstrated in these test animals. This is an expression of bone and collagen weakness. (7) The success of some tuberculosis diets seems to depend on the increased vitamin C intake. In tuberculosis vitamin C has been used with very gratifying gains in weight. This seems to bear out the theory of the essential need of a vitamin by a tissue. Taylor (8) found that scurvy in the test animal leads to carditis. Vitamin C has also been used with favourable results in whooping cough and progressive muscular dystrophy. It has been stated that twice as much vitamin C is needed for tooth protection as to prevent scurvy. Saturation of the tissue is important. This may be because the soft tissues and periodontal membrane require an excess amount owing to the nature of their function.

VITAMIN B

The Vitamin B complex is composed of six known principles which are water soluble as in vitamin C. The antineuritic factor (B) has been isolated and synthesized. When there is a deficiency there results an impaired functional activity with some degeneration of the myelin sheath and nerve cell. It would seem that the myocardial weakness and cardiac enlargement, the palpitation and shortness of breath as well as the gastrointestinal disturbances are due to the action

of vitamin B on peripheral nerves, or to one of the other factors in the B complex.

Two other important factors necessary to the human body are present in the B complex. They are the anti-dermatitis factor and the anti-pellagra factor. These two are still treated by some writers as one and the same vitamin. Pellagra, (Ital. Pella, agra, rough skin) however, is a disease wherein the symptoms are not all confined to the skin. Pellagra, like some other deficiency diseases makes its appearance in the mouth. The glossitis, rawness and blueness together with the impression of the teeth on the lateral aspect of the tongue is typical. This is sometimes partly masked by Vincent's infection. This infection then, is frequently due to a lowered resistance of all the soft tissue of the mouth. The gastro-intestinal and cerebral symptoms leave us with two general theories. There are either two separate food factors or the symptoms present are the result of similar pathosis. The first is the more tenable. (Nicotinic acid has since been isolated.) The body cannot store enough of this vitamin complex to meet the requirements for any considerable time.

VITAMIN A

In contrast to vitamin C and the vitamin B group which are water soluble, there is the fat soluble group, Vitamins A, D and E. (Time permits of a discussion of the first two only.) Vitamin A deficiency from a pathological point of view affects primarily the epithelial tissue. The normal epithelial tissue, wherever found in the organism changes in appearance to keratinized, stratified, squamous cells. The more advanced cases of vitamin A deficiency are frequently complicated by a secondary infection (9) since the epithelial tissue constitutes the first line of defense of the organism. It would seem probable that

receding gums as well as the improper functioning of the epithelium of teeth sockets, etc., are an indication of vitamin A deficiency. It has been found that if the tooth socket epithelium is perfectly formed in early life, then pyorrhea alveolaris in later life is provoked only with difficulty.

Through the work of Wald (10) the relationship between visual purple and vitamin A has been definitely shown. Two conditions of the eye result from a vitamin A deficiency. Fredirica and Halm (11) showed that there is a retardation of regeneration of visual purple on a vitamin A deficiency diet. 1. Night-blindness (Hemeralopia) has appeared frequently in institutions, among religious groups during the past, on long voyages and among groups exposed for long periods to glare or sunlight. (12) It is a reduction of visual function in reduced illumination. Howe and Walbach (13) came to the conclusion that absence of vitamin A created a starvation specific for epithelial tissue.

According to Jeghers (14) hemeralopes complain of being dazzled and temporarily blinded by motor car headlights. A proper therapy completely restored normal dark adaptation and eliminated night blindness.

2. Xerophthalmia, beginning as an inflammation of the conjunctiva and leading to a degeneration of the corneal epithelium.

Vitamin A is synthesized by the liver from carotene, a yellow pigment, by the action of an enzyme. If vitamin A is present in the diet it is stored in the liver. The liver stores and regulates vitamin A concentration in the body. If completely absent from the diet it takes several weeks to deplete the liver store. (15) The storage of this vitamin is not simply a reserve, but seems to increase body vigour as well as increase the resistance to disease. Among the good

sources of vitamin A are whole milk, cream and butter, egg yolk, fishroe, carrots, kale, parsley, peppers, apricots, peaches, prunes, as well as cod and halibut liver oil.

VITAMIN D

Vitamin D, a fat soluble vitamin, known as the anti-rachitic or sunshine vitamin, regulates the metabolism of calcium and phosphorus. It is therefore essential to bone growth and tooth development. Without it these are the tissues that show pathosis.

However there is a difference to be noted. In the case of bone changes resulting from vitamin D deficiency the pathosis is reversible, much the same as in the early stages of other vitamin deficiencies. In the case of dental caries, however, we have largely an irreversible pathosis. This is not true of dentine. Dentine originates from the mesoderm and remains in contact with nerve tissue and the circulation. No reversible pathosis has been noted in the case of tooth enamel. This is, perhaps, because the ameloblasts or enamel producing cells, which form the deposit enamel in their base, are gradually converted into enamel fibre, and there are no other enamel buds or ameloblasts, (special cells of ectodermal origin) since the dental shelf in the embryo gives off only two series of buds—the milk set and the permanent set. Since ameloblasts are derived from epithelial tissue a deficiency of vitamin A would lower their normal development and function. In some of the lower vertebrates, when a tooth is lost another takes its place. This is because the dental shelf gives off a series of buds. In some animals such as the kangaroo there is only one series of buds, hence one set of teeth which are never replaced. Can we classify enamel as the only tissue in the human organism in which no reversible pathology takes place? The Mellanby

view that every part of the tooth is alive, even to the enamel, is however not lost from sight.

Vitamin D like the other vitamins, is a necessary food factor throughout life. While the amount needed by an adult is less than in childhood, it is a required factor and is needed in definite amounts. The evidence in your practice points to its need even with artificial dentures. When teeth have been removed it seems desirable that absorption of the alveolar process does not continue. That it does continue is shown by the continual rebasing of these dentures. Pregnancy gives evidence of the fact that the alveolar process is the first to show resorption in a low calcium or low vitamin D diet.

If the alveolar bone is retained we have the original basic structure rather than soft tissue only. It is certain that nutritional factors are just as important as denture construction. A flat surface produces the greatest amount of adhesion and frictional resistance, states Keeton in the *Journal A. D. A.* (Vol. 24: 8/37). Nutrition through vitamin D and calcium is the essential factor, though probably not the only one. Even when the dental surgeon faces defeat, through loss of teeth, the rescue can be more satisfactory and the defeat less pronounced if the minerals and vitamins sustain the base for the artificial denture.

As in the case of the other vitamins, vitamin D has been used for other pathological conditions. Its function of calcium and phosphorus absorption and mobilization is primary. (Here again we have the "straight line action of a vitamin toward single tissue function".) The presence of vitamin D in the intestinal contents is favourable to the absorption of calcium phosphate which is insoluble in the duodenum because of the alkalinity of the bile. (16) Lactic acid formation gives a favourable pH for calcium

absorption. By this absorption the blood calcium and phosphorus are raised to a level favourable to their deposition in bones and teeth. This deposition continues throughout life as long as they are present at normal level in the blood stream, and it continues to deposit in the alveolar process whether there has been tooth extraction or not. Resorption of tooth or root is however not sufficient cause of itself for extraction. A lowering of the calcium, phosphorus or vitamin D intake affects the utilization of all three of them and may cause resorption of tooth root, although this last is still doubtful.

It is also recognized that the parathormone also causes resorption of the alveolar process. Over-activity of the parathroid or injection of an excess amount of the hormone will cause resorption of these tissues. It may be used in orthodontia to initiate and accelerate resorption to shorten the period of mechanical application, but a hazard certainly exists in that the patient may be unwilling to remain under observation long enough. Further, it is not so certain that recalcification will take place to the same degree as the resorption. Another important point to be mentioned here is that hormones like enzymes respond amazingly to emotional changes. It might be easy to get an increase in parathormone if you knew which emotion would produce it.

It seems certain that one cause of dental caries, with other factors secondary, in adult life, is the inadequacy of vitamin D in the diet during infancy and childhood. Though other theories such as high carbohydrate intake, adhering sticky sugars, and acid forming bacteria are important in tooth hygiene, it would seem that vitamin D plays a primary role.

All experimental evidence seems to point to the fact that vitamin D in the diet is not only essential to the original

development of the tooth, but is also an important factor in building up the resistance of the tooth. (17) In man the addition of vitamin D to diets previously considered adequate in all respects, including phosphorus, is an important factor in the prevention of dental caries. (18)

The Columbia University Dental Caries Research Group trace the cause of caries to dental lymph, and state that both saliva and pulp supply a secretion essential to normal metabolism of the whole tooth, and are a protection to the enamel. They also state that abundant vitamin D is an aid in prevention, and that the complete exclusion of sugar does much to retard dental caries. Ferguson, in the Journal of the American Dental Association, states that the prevalence of dental caries in Samoa, is limited almost exclusively to the contact points of civilization and is in direct ratio to the degree of civilized influences. Enamel hypoplasia of permanent teeth is frequently associated with rickets. Anti-rachitic therapy in infancy reduces the incidence of enamel hypoplasia.

The scarcity of vitamin D in foods (and its absence is almost complete in all but two) led to the development of the Steenbock process. By this process one food, namely milk, is irradiated to increase its vitamin D potency 15 to 20 times the minimum level (in Toronto). While all vitamin D is the result of ultra-violet irradiation, the close association of calcium and vitamin D in milk has shown it to be a satisfactory and easily utilizable source of these two food factors. Homogenizing irradiated milk as you do here (Toronto) not only makes milk more palatable, but it prevents cream removal and disturbance of its protective food value. Taking the "top" off the milk and using it as cream robs the remainder of three vitamins. These vitamins should go with the whole

milk and homogenization prevents the separation. It also increases its digestibility. The reason we must continue to use milk in the daily diet, in spite of any drawbacks, is its unique protective food value. Further, there is no single substitute for it, and it is the only food which contains some of all the food factors. It is from milk that we obtain our main and most important supply of calcium. However, more time and money are spent on maintaining the quality of milk than on all other foods combined. A diet including milk is not the only diet that enables one to be free of tooth decay. Several groups, such as the Eskimo and the Hawaiian, where the white man's food customs have not been adopted are free of tooth decay, but the answer is that they secure certain food factors from parts of the animal which we do not use.

A complete or absolute deficiency of a catalyst or vitamin may never exist. On the other hand, it is recognized that a higher incidence of disease exists because of a less than required amount being present. Much of the sub-normal health and development is recognized today as a partial deficiency of the adjacent tissues, as well as of the teeth. The dental surgeon, seeing the condition, may easily sound the first warning of an approaching syndrome, unless an early correction is made in the diet.

Describing civilized society, Edward Carpenter, in his book, "Civilization, Its Cause and Cure" writes, "He who has been the free child of nature denies his sonship . . . He deliberately turns his back upon the light of the sun, he hides himself away in boxes with breathing holes which he calls houses . . . He muffles himself in the cast off furs of the beasts, every century swathing himself in more and more layers, more and more fearfully and wonderfully fashioned, until he ceases to be recognizable as the

man that was once the crown of the animals . . . He ceases to a great extent to use his muscles, his feet become partly degenerate, his teeth wholly, his digestion so enervated that he has to cook his food and make pulp of all his victuals."

Mankind is constantly upsetting the equilibrium formerly maintained instinctively. Changes in housing, clothing, cooking and activities are constantly disturbing the balance, and it is the duty of science and the medical and dental practitioner to restore the disturbed balance, and in particular to restore it in humanity's favour. The dental surgeon holds a particularly favourable position in the elimination of disease.

Change is slowly making headway, but it is none the less real. It arises from two premises; the first, that the dental surgeon is dealing with an organism, not just with tooth structure. The organism eats many things, and sometimes leaves out vital food factors. Choice of foods and excessive processing causes deficiencies, and as a result we have tooth pathosis. The second is also important. The dental surgeon frequently gets the first chance to note a changing condition in the oral cavity.

The vascular weakness first seen by the dentist even before the patient is aware of a change is not a change in the vascular tissue of the mouth alone. The same tissue is affected throughout the organism, although not to the same degree. The glossitis, slight though it seems, may be the first sign of a deficiency. Many other diseases show oral tissue changes as the first evidence of their existence. Respiratory difficulty, acetone breath, atrophy of the papillae of the tongue, the red, flabby tongue in idiopathic anaemia and the glossitis in macrocytic anaemia may at any time come under the scrutiny of the dentist before the patient is aware of their existence.

The physician notes dental defects

since they play a part in organic health. So, too, the dental surgeon recognizes changes in adjacent tissue such as the mucous patches of syphilis, a disease which seems to have a predilection for the mucous membrane of mouth and nose. Other diseases, such as goitre and heart disease, may be first noted by the dental surgeon. Just as we frequently have mental and visual evidence of a physical disease, so we may have visual evidence in the oral cavity of constitutional, systemic and deficiency diseases.

These oral signs are not as yet entirely recognized in the field of medicine. The dentist's chair is the easiest, earliest, and perhaps the best place to recognize them. It can be done for I have seen it in process with excellent results.

REFERENCES

1. The Problem of Nutrition, League of Nations, Geneva.
2. Hawkins, Harold F., Dental Survey, June, 1937.
3. Sheldon, J. H., Presidential Address, Staffordshire Branch, B.M.A., 1933.
4. Elvehjem, C. A., Peterson, W. H., and Mendenhall, D. R., American Journal Diseases of Children, 46, 105-1933.
5. Walbach, S. B., Jr., AMA, Jan. 2, 1937.
6. Daniels, A. L. & Everson, G. J., Proc. Sec. Exper. Biol. & Med., Oct., 1936.
7. Boyle, P. E., Bessey, O. A., Walbach, S. B., Prac. Soc. Exper. Biol. Med., June, 1937.
8. Taylor, S., Lancet, London, April 24, 1937 (quoted in Jr. AMA.)
9. Jeghers, H., An. Int. Med., March, 1937.
10. Wald, G., Jr., Gen. Physiol. XVIII, XIX, 1935.
11. Fredirica, L. S., & Holm, E., Am. Jr. Physiol., June, 1935.
12. Aykroyd, W. R., Food Deficiency Diseases in Newfoundland & Labrador, Jr. Hyg., XXX, 1930.
13. Howe, P. R., & Walbach, S. B., Jr. Exp. Med., 1933. (Quoted by Walbach, S. B. (5).)
14. Jeghers, H., Jr. AMA., Sept. 4, 1937.
15. Mendel, L. B., quoted by Jeghers, H. (9).
16. Matthews, A. P., Biochemistry, Principles of.
17. Agnew, M. C. & R. G., & Tisdall, F. F., Jr. Paed., Feb., 1933.
18. Eliot, Martha M., et al, Am. Jr. Dis. Child., Oct., 1934.

Habit is the flywheel of society, its most precious conserving agent. The great thing, then, is to make our nervous system our ally instead of our enemy. We must make automatic and habitual, as early as possible, as many useful actions as we can, and guard against growing into ways that are disadvantageous as we guard against the plague. The more of the details of our daily life we can hand over to the effortless custody of automatism, the more our higher powers will be set free for their proper work. There is no more miserable person than one in whom nothing is habitual but indecision.—William James in Psychology.

Conventions

14TH GREATER NEW YORK DENTAL MEETING, HOTEL PENNSYLVANIA,
NEW YORK CITY, DECEMBER 5-9.

MIDWINTER MEETING OF CHICAGO DENTAL SOCIETY, FEBRUARY 13-16, 1939.

AMERICAN DENTAL SOCIETY OF EUROPE, LAUSANNE, SWITZERLAND,
AUGUST 7-9, 1939.

K. C. CAMPBELL, Secretary, 88 Portland Place, London, W.1., England.

FIFTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB, MONTREAL,
SEPTEMBER 27-29, 1939.

Report of the Military Committee of the Canadian Dental Association

(Presented at House of Delegates Meeting, Vancouver, July 2, 1938.)

FOR the past eighteen months this Committee has been making a study of the past and present conditions in the Dental Corps of several of the armies of the world.

The forces investigated so far are those of Great Britain, United States, New Zealand, Australia, Canada, and to a lesser extent, because of the difficulty of obtaining the literature, Germany and France.

Information was gained from two sources. First, official and other publications from 1914 to the present time have yielded a great deal. To date, the author has surveyed, and in most cases synopsised, approximately one hundred such publications. Second, interviews with officers and ex-officers were also very informative. Altogether, over thirty of these gentlemen of the dental or medical corps of all the armies mentioned above, with the exception of those of Germany and France, have thus been of assistance. Also, the author has paid a visit to Carlisle Barracks, Medical Field Service School, Carlisle, Pa., where he was allowed to examine the field and other dental equipment of the United States Army.

It is proposed to render to the Minister of National Defence a report entitled "A Proposed Dental Service for the Defence Forces of Canada." This has been divided into four parts as follows:

1. A Proposed Dental Service for the Active Militia. (N.P.)
2. A similar service for the Perma-

nent Active Militia, Permanent Active Air Force and Royal Canadian Navy.

3. A Service for general mobilization.
4. A final report on equipment, supplies and transport for both peace and war services.

The first of these reports dealing with the history of the situation, the necessity for a Dental Corps and a proposal for the Active Militia, (N.P.), has already been in the hands of the Minister for several months. The other three are well advanced.

An appreciation of Military, Air Force and Naval dentistry can best be gained by a very brief synopsis of the first two chapters of this report on the history of the dental service and the necessity for a Dental Corps.

Army dentistry is not old. The first reference recorded by this committee is an observation regarding the South African War that over 20,000 British soldiers were invalided home on account of dental disabilities or other disorders directly attributable to them.

Army arrangements consisted only of civilians who volunteered to go to South Africa. They were so few in number that they could do but little to cope with the great volume of the work.

Between the period of the Boer War and 1914, the War Office gave a limited number of medical officers some training in first aid dental work, but the bulk of any army dental work done was by contract with civilian dentists.

In the Canadian Militia in pre-war

1914, the dental establishment consisted of twenty-six dental officers of honorary rank attached to various units of the Medical Corps.

This situation prevailed at Valcartier and four dental officers, attached to medical units, proceeded overseas with the first contingent.

By November, 1914, the British had to drop their dental standard for recruits because of the thousands of rejections for this reason.

The same situation prevailed in Canada and the profession led the way by offering to supply operators if the military would open clinics. This was accepted and the first clinic in Toronto was established in a cow stable in the Exhibition Grounds. By April, 1915, it is interesting to note that 59 of these operators had returned their cheques to the government. The number mentioned gives a good idea of the freedom with which they offered their services.

In the face of the thousands of rejections, however, something had to be done on a far greater scale. The military authorities quickly made a very radical decision and formed the Canadian Army Dental Corps in May, 1915 (1) as an entirely separate unit directly responsible to headquarters and with the rank of the officers substantive rather than honorary. Dental Officers already serving with the C.A.M.C. were transferred to the new unit.

One writer immediately commented on it as follows: (2)

"War conditions have shown conclusively the absolute need for an efficient Dental Corps in the army, and the Minister of Militia is to be heartily commended for his fearless and prompt action The advanced position taken by Canada will, no doubt, be of great assistance to members of the profession in other countries in their effort to have the dental

surgeons placed upon equal footing with other branches of the army, and organized in such a way as to make possible the rendering of the best possible service."

For a time, the situation seems to have been more or less of a scramble to get dental service to as many soldiers as possible. And what a scramble it must have been! Officers were simply detailed where it was felt they were most urgently required until the supply was exhausted; then other units were left with no dental service at all.

The situation rapidly improved however.

The first draft of 30 officers and accompanying other ranks was in England and at work by July, 1915.

A quotation in the London Evening News a few months after, gives some idea of the English appreciation of it. (3)

"If any doubt existed as to the need of the Corps' existence, a visit to any of the various clinics and laboratories would soon dispel it. Every branch of dental work is done with the dispatch and thoroughness that characterize a city office."

"Already information regarding its establishment and equipment is being sought by other countries with a view to adoption in their own armies."

As may be inferred from the above, and as may be recalled by a number of men present, the English lagged badly. For instance, the two Canadian dental officers at Salonika with No. 4 University Base Hospital found themselves responsible for 100,000 men. Surgeon-Gen. J. A. Roberts stated that: (4)

"their clinic has been besieged from morning till night by men of every rank."

A further statement by the same author describes the dental condition of the men:

"practically every man coming into the hospital required more or less dental treatment. The condition of the Tommies' mouths is simply bad beyond description. I am sure that I do not exaggerate when I say that each man coming in requires the attention of a dental surgeon for from one to ten hours of his time."

Militia Order, No. 257 of 1915 gave our Army an establishment that would have allowed one dental officer to each 1400 men, but it was never put into force in France.

In Canada, in 1916, the dental standard was dropped altogether. This is a fact that should not be lost sight of, because it will undoubtedly come again under similar circumstances. The effect will be the same in each case—a heavier burden on the Dental Corps. This was immediately provided for by a very complete organization that among other advances, would have placed dental officers with combatant units, and increased the proportion to one dental officer per 700 men, approximately. Again, it was blocked in France and the Corps had to carry on until the end of the war with one officer per Field Ambulance and Casualty Clearing Station in the forward areas. This arrangement forced each dental officer to care for approximately 5000 men, a quite impossible task, as shown by the experience of every ex-dental officer who has been interviewed.

Development continued until by the end of 1916 all drafts were leaving Canada dentally fit.

English opinion of the Corps is well shown by the following extract from a speech in London by the President of the British Dental Association. (5)

"The Canadian Army is the only army in the whole of the world that attempts to send its soldiers to the front 'dentally fit', and keep them fit."

An authoritative comparison of the Canadian Dental Corps with that of the entire British Forces is given in the following extract from a report by the British Dental Association to Sir Auckland Geddes, the Minister of National Defence, in October, 1918. (6)

"In numbers alone, the fact that the whole of the British forces have only a little more than twice the number of dentists belonging to the Canadian Army Dental Corps is surely very significant, and as regards organization and administration, the inferiority, as compared with the Dominion forces, is equally manifest to those who are familiar with the details."

Surely this information is sufficient to show the very high position of Canadian Army dentistry at the termination of the War.

When hostilities ceased, and the units were withdrawn to Canada for demobilization, the C.A.D.C. undertook to see that every soldier left the army "dentally fit". Of 86,115 men examined in the period up till December 1919, 62,514 received dental treatment.

When this tremendous task was finally finished, the Dental Corps itself was demobilized and ceased to exist as a war unit.

So far the story is one of achievement—achievement in capital letters. It is a story of a profession that patriotically and enthusiastically attacked and to a great extent, solved, an enormous problem incidental to this titanic struggle of nations.

Let us recapitulate with a few of the outstanding points.

In the beginning, only an occasional medical unit had an attached dental officer. From four dental officers with the First Contingent at Valcartier the numbers increased to a total of approximately 1339 as shown by the following table.

TOTAL PERSONNEL IN SERVICE

	Officers	O.R's.
FRANCE	40	85
CANADA	145	270
ENGLAND	250	549
	435	904
		435
		1339

The story of the heavy increase in number also tells the story of the operations completed. The final count is listed as follows:

ENGLAND	2,063,289
CANADA	2,104,315
	4,167,604

In December, 1917, General Mewburn had decided that the C.A.D.C. had earned the right to be perpetuated and a general order of this date established it upon the same basis as every other militia unit. This order was never put into force, however.

In September, 1920, the subject came up for discussion at a meeting of the Canadian Dental Association at Ottawa. The following resolution was drawn up, discussed at a subsequent meeting and finally presented to the government.

"That in the interest of the public a Permanent Army Dental Corps as an independent unit, be authorized in Canada for the following reasons: (7)

1. That efficient dental service for the Permanent Militia forces of Canada, demands such a Corps.
2. That a definite promise was given to the dentists of Canada, by the then Minister of Militia, that such a unit would be established and that failure to establish such a corps would be regarded as a breach of faith.
3. That the establishment of such a unit would insure the co-operation of the best men in the profession.
4. That the important part played by

dentistry in the recent war and the efficient services rendered by the Canadian Army Dental Corps, justify the dental profession in making such a request."

No attention was paid to this resolution as far as the Permanent Force was concerned.

Headquarters apparently decided that the dental requirements of this group could best be satisfied by having civilian practitioners do the work.

A general order, No. 199 of 1921 set a scale of fees that has been amended from time to time until the present.

Interviews with officers doing this work show that these fees are only very average. The greatest point about the situation is, perhaps, the fact that the account is certain to be paid.

In the case of the Non-Permanent Militia, the decision of headquarters was quite the reverse of the program for the Permanent Force.

General order No. 182 of June 15th, 1921, was issued to establish the Corps on a peace time basis.

This order immediately strikes the reader as a capable effort and it would have given the C.A.D.A. a fine start under the new conditions if it had been followed up.

There was, however, dissension in the ranks of the dental profession. The Director who was appointed resigned at once on account of it, and no successor was chosen.

After some time the administration was taken over by the Medical Corps. The dental profession showed no interest in the situation and very few, if any, appointments were made.

This state of affairs continued until March, 1935. Then general order, No. 182 and its few amendments were cancelled and the Corps was reorganized under more or less the system that was used in France during the war.

It was simply laid down in the establishment of a Casualty Clearing Station and a Field Ambulance that there is to be a dental officer attached.

This officer is listed as belonging to the C.A.D.C. This arrangement provides for substantive rank rather than honorary, as was the case in pre-war days, when the same ratio and distribution of dental officers was in force, but, otherwise, the system is of pre-war vintage.

There is no director or other dental officer in charge of administration and no machinery with which to administer a Corps. Reports show that dental officers are selected by senior officers of medical units with or without the advice of senior dental officers or organized dentistry. Such a system is not at all comprehensive. Enterprising medical officers make sure that each has a dental officer, others do not, with the result that the dental picture is not complete.

Examination of the Defence Forces List at the present time shows that the C.A.D.C. consists of a General List and a Reserve List. The former contains the names of five Majors, nine Captains and fifteen Lieutenants—twenty-nine officers all told; the latter has only two names on it.

There is no training program of any kind. The attached dental officers merely go to camp and treat incidental and accidental emergency cases.

The establishment includes no other ranks at all. The dental officers, for this reason, are without trained help of any kind. This is not serious from the standpoint of the dental officer in view of the actual work to be done, but it is serious from the standpoint of the training of other ranks for a possible future emergency.

A general mobilization would immediately cause a demand for several hundred assistants trained from both mili-

tary and dental points of view. Their exclusion from the present arrangement for peace-time training simply means that advantage is not being taken of a valuable opportunity to offset a serious handicap that will inevitably attend a future mobilization.

The equipment is very poor. Practically all of it was in use or purchased for use during the War. As judged from that available in Military District No. 2, much of it is obsolete and the remainder is old and in a poor state of repair. In addition, a great many necessities are simply not available.

Instruments and supplies can be described in exactly the same way. Such is the brief story of Canadian military dentistry. If it has acquainted the reader with the proud achievements of the War years and the general situation as it now stands, it has served its purpose, because it has shown to a certain extent that our C.A.D.C. has a worthy past and a right to be worthily perpetuated. Its present low estate in the face of the present world crisis should be an added incentive for us to concentrate on its improvement.

A PROPOSED DENTAL SERVICE FOR THE ACTIVE MILITIA (N.P.)

Conditions peculiar to the Non-Permanent Militia and the extent of the dental service required had to be studied before a comprehensive establishment could be suggested.

As a matter of fact, the dental treatment consists almost entirely of the care of emergency cases during training.

The real object of peace-time training, however, is to prepare for a future emergency.

With this in mind, the following duties of a Non-Permanent dental organization were outlined in the first report.

1. An examination of each recruit should be made on enlistment. The data secured may be of use in de-

termining a future dental establishment.

2. A system of examination and treatment should be established for the Permanent Force.
3. Field equipment and supplies for a future emergency should be selected, used, criticized and improved. This also, will be made the subject of a separate report to be rendered later.
4. A trained reserve of officers should be created.
5. A sufficient reserve of dental technicians should also be trained and registered.
6. A suitable establishment should be created to accomplish all these requirements.

The following recommendations were incorporated in this report that is already in the possession of the Minister.

The Establishment. The general scheme is to give the corps the same status as the Medical Corps. Thus, it should be directly administered by the Adjutant-General and not dominated by the Medical Corps. Co-operation is suggested as the key-word rather than domination.

It is described under the headings.

1. The General List.
2. Headquarters Staff.
3. Military Districts.
 - (Staff.
 - (Active Detachments.
4. Corps Reserve.
 - (Officers.
 - (Other Ranks.

A staff was suggested with sufficient personnel to look after the administration including organization, training, selection of equipment and supplies, correspondence.

The organization in each district is comparable to that of the Medical Corps. A small staff was suggested to look after administration, and the Active Detach-

ments were outlined to do the actual dental work and to receive necessary military training.

A Corps Reserve was suggested as a more necessary attribute to a Dental Corps than to certain other units because in the event of a sudden declaration of war the bulk of the dental work would be done in the training camps and a Dental Corps should swing into action with the least possible delay.

There were two methods given for the creation of this reserve. First, the whole plan might be laid before the students in the various Canadian dental colleges in an effort to have more of them take the instruction made available in the C.O.T.C. in the various Canadian universities. New Zealand goes one step farther and requires each dental student to take an officer's course. In this way, this sister colony has built up a sufficient reserve in a few years.

However, if an emergency is expected before such a plan will provide reserve officers in sufficient numbers, another method is suggested.

A census of dental graduates can be taken to determine those of military age, of physical fitness and their possession of certain dental specialties of particular use in army service.

A Research Committee was suggested to assist in the selection of equipment and supplies, the development of a system of records and in many other ways.

A Reserve of Technicians was advocated to eliminate some of the grief that attended the enlistment of the Dental Corps during the last war.

A Canadian Military Dental Association was proposed. This should consist of all dentists interested in the welfare of the Corps but not necessarily on strength.

It might even include a Ladies' Auxiliary in certain district headquarters.

Further, it might organize an auxiliary association of qualified technicians.

The Name of the Corps.

A request was made to name the Corps the Royal Canadian Army Dental Corps.

After the war, every service except the C.A.D.C. was granted permission to use the word "Royal" with the initials (N.P.) after the name of the unit.

Our Dental Corps, therefore, that arose from an establishment of four attached officers to a strength of more than a battalion; that had to its credit a record of more than 4,000,000 operations; that had been acknowledged by several high ranking officers to have increased the fighting strength of our army over 10% and that had been ranked as the finest in the world, was simply left without recognition.

But the C.A.D.C. will be regenerated and in the record of the past it was respectfully suggested that the use of the word "Royal" be extended to our Corps also.

This is just one of a number of other miscellaneous subjects dealt with.

This concludes the synopsis of the first report. It has been given at considerable length to acquaint the group with the present status of the C.A.D.C. The three succeeding reports will be dealt with much more briefly.

A PROPOSED DENTAL SERVICE IN THE
PERMANENT ACTIVE MILITIA, PER-
MANENT ACTIVE AIR FORCE AND
ROYAL CANADIAN NAVY

This report is divided into two parts: the present and the future. The present, which is really an appraisal of the dental situation in the Permanent Forces and the Navy is described under the following headings:

1. Conditions peculiar to a Permanent Force.
2. The strength of the Permanent Defence Forces of Canada.

3. The amount of dental work to be done.

4. Other conditions related to the present dental arrangements.

5. Conclusion: The Necessity for a Dental Corps in the Permanent Forces.

Some of these points should be briefly explained.

The Strength of the Permanent Force, Air Force and Royal Canadian Navy was graciously given by the Department. It should be stated just here that the writer has received every consideration from the Department of Defence during this investigation.

The Amount of Dental Work to be done was divided into two parts:

1. Oral condition of the recruit.
2. Oral condition of all ranks already in the Service.

It will be interesting for the group that statistics from both Britain and the United States pointed to the fact that the average recruit has approximately ten defective teeth.

Officers and other ranks already in the Service require annual dental attention for about 40% and 50% of their number respectively.

The Necessity for a Dental Service was a foregone conclusion but there are some interesting points. The final paragraph on this subject is quoted in this connection.

"Dental service, however, meaning dental treatment only, is not enough. The Canadian Army should go into dental practice. In other words, the problem is not altogether one of merely putting mouths in order. It should also be recognized that an army should learn how to conduct the practice of dentistry in an efficient and economical manner. This involves the ability to select, care for and repair the proper equipment and supplies, keep the necessary records, train the dental per-

sonnel, etc. Only in this way can we create the highly trained nucleus that is the British method of preparing for an emergency."

Part II, which deals with the proposal made, is treated under the following heads:

1. The responsibilities of a dental service.
2. The quality of work that should be done.
3. The percentage of dental officers required.
4. A proposed organization to meet the requirement.
5. *Conditions of Service* include all information procured on such subjects as
 - (a) Enlistment
 - (Officers.
 - (Other Ranks.
 - (b) Training
 - (Officers.
 - (Other Ranks.
 - (c) Promotion
 - (d) Rank
 - (e) Pay
 - (f) Retirement
6. A *Miscellaneous* group of subjects also necessary to discuss were
 - (a) Uniform.
 - (b) Badges.
 - (c) Quarters.
 - (d) Equipment and Supplies.
 - (e) Records.
 - (f) Training.

The Responsibilities of a Dental Service are given at length from information gleaned from both British and American army literature.

The Quality of Work that should be done follows the American lead rather than the British because of our higher standard.

The Percentage of Dental Officers Required is a very interesting feature. The experience of the American army has been that the ratio should be 1:500. The

British are badly under-staffed but they are continually attempting to increase it.

The Proposed Organization cannot be described with any detail because of its length and complexity. Again, the method used was to suggest it along the same lines as the Medical Corps, but to make a separate service of it.

Conditions of Service were rather definitely stated in order to keep the situation parallel to the Medical Corps. In the British and Australian dental services there is a constant protest because of the superior status of the medical officers. For instance, the latter can attain higher rank which, of course, means older retiring age and more pension. They also serve shorter periods, rank for rank, to obtain promotion. Finally, rank for rank again, the medical officer is allowed to serve longer.

These are, perhaps, the high-lights on the report on the Permanent Forces and the Royal Canadian Navy.

A PROPOSED DENTAL SERVICE FOR GENERAL MOBILIZATION

Mobilization: The first part of this report is also devoted to an appraisal of the situation.

A chapter on the past gives certain relevant data of the data of the dental service in previous wars. Another deals with the present British establishment as laid down for active service.

Finally, a chapter on the future deals with conditions related to mobilization—for instance,

1. The expected dental condition of the recruit.
2. The dental requirement.
3. Dental sick wastage.

Part II contains the suggested proposal.

A chapter on service conditions deals with the following:

1. The service to be rendered.
2. Extent and quality of it.

3. Where the dental operations should be performed.

The personnel, both officers and other ranks, under the headings of

1. Qualification.
2. Training.
3. Rank.
4. Promotion.
5. Pay.

Again the key-note is to have the dental service parallel the medical service as closely as possible.

An important chapter is devoted to the percentage of dental officers required. It is a sorry fact that in spite of the lessons of the last war, the British establishment is still only one officer per Field Ambulance, and C.C.S. in the Divisional Area. The only alleviating factor is that the strength of the division has been somewhat reduced. In spite the ratio is still about 1:4000. The Americans have seen daylight and have increased the ratio to 1:500.

The most important chapter deals with the proposed organization itself.

A few radical suggestions are made that would take too much time to discuss here, but if we are to profit by experience and, at the same time, take heed of the changes that are taking place, the authorities can well afford to think seriously over them.

Certain miscellaneous subjects, such as records, equipment and stores finally complete this report.

EQUIPMENT, SUPPLIES AND TRANSPORT

This particular section of the investigation will require a great deal of work to satisfactorily complete it.

The past contains little to draw upon. Our own situation, especially during the early days of the Corps, was tragic.

One officer described it as either a feast or a famine. At first, it was undoubtedly a famine. One amusing tale was told of a dental officer who used a tent peg as

a mouth prop. Another officer could not secure any college pliers. He finally salvaged a broken pair, had them riveted for a shilling and used them for the duration of the war. Later, however, the situation was reversed when the equipment and supplies really began to arrive. Then another difficulty presented itself. There was no mobilization store table available for the Dental Corps; consequently, the selection of equipment and supplies remained subject to the judgment of some senior officer playing the part of purchasing agent.

For this reason, many mistakes were made. However, mistakes were the order of the day. Without them, the Dental Corps would have been unlike any other branch of the service.

At the present time, the British have a list of equipment and supplies laid down and the transport detailed to a place on Medical Corps trucks.

It is understood that the Medical Corps has recently imported one of these dental kits, but, so far, the author has not seen it. After studying the official list, however, it became apparent that equipment, instruments and supplies are all 100% British. This is to be expected, but when one remembers that we are considerably more advanced in dental procedures, it also becomes apparent that they are of an older design and, in certain cases, are for techniques that are now obsolete in Canada.

The American kit is different. As already stated, the writer paid a visit to the medical headquarters at Carlisle, Pennsylvania, and examined it thoroughly. The items in it were well known to the author because these are the instruments etc., that we use in Canada. It is very well designed, sufficiently portable, and in every way worth copying.

The question of replacing items has been advanced by the Medical Corps in favour of the British. The author can-

not agree. For instance, why should we import a dental chair when good Canadian chairs are made in Toronto. Further, there is no cloud on the horizon of the relation between the United States and Canada. Thus, any dental stores manufactured in the United States could be secured more quickly than those made in Britain.

We have just seen articles in the papers that artillery, etc., ordered a few years ago in England had not yet been delivered, and, therefore, an attempt was to be made to manufacture it in Canada. The author feels that we might easily be in the same predicament regarding dental kits. Therefore, it behooves us to design and assemble our own.

The method being followed is to request one or more specialists in each important department to make a list of the necessary equipment, instruments and supplies. A composite committee will later check all the lists and make a final

decision. Certain problems such as sterilization, soldering, casting, vulcanization, etc., in the field will also be dealt with by this committee. The transport will be an easier problem, as far as can be seen at present.

This completes the report of the activities of the C.A.D.C. Committee to date. It is hoped that it meets with the approval of the Association.

BIBLIOGRAPHY

- (1) Militia Order, No. 162, May, 1915.
- (2) Canada leads in the Organization of an Army Dental Corps, Oral Health, May, 1915, p. 22.
- (3) London Evening News. Oral Health, October, 1915, p. 455.
- (4) Surgeon-General J. A. Roberts, Commendation for Dental Services at University Base Hospital, Salonika, Oral Health, February, 1916, p. 126.
- (5) Oral Health, August, 1918, p. 386.
- (6) Oral Health, October, 1918, p. 417.
- (7) Oral Health, September, 1920, p. 338.

(Sgd.) F. M. LOTT,

Toronto, Ontario.

The above report was referred to a sub-committee by the Delegates and after careful consideration the following recommendations were brought in and adopted.—Editor.

REPORT OF COMMITTEE ON C.A.D.C.

Your Committee on Dr. Lott's C.A.D.C. report met last evening and after long study and discussion arrived at the following conclusions:

1. In view of the fact that a complete reorganization of Canadian defence forces is almost completed, it seems the logical time to press for a reorganization of the dental services in conformity with present-day requirements and standards.

2. We strongly recommend that the defence dental services should be directly under the Adjutant General's department, and not under the Director of Medical Services.

3. That the outlined scheme of reorganization as prepared by your Committee be endorsed with a few minor modifications.

4. That the Canadian Dental Association, as officially representing Canadian dentistry, be allowed to name the Director of Dental Services and other senior officers, on reorganization, and be ready to advise the Minister of National Defence on any matter pertaining to the efficient organization and functioning of the Corps.

5. That this Association at once, through its proper officers, bring these recommendations to the notice of the Honourable Ian Mackenzie, Minister of National Defence.

(Sgd.) E. T. BOURKE,

J. S. BAGNALL,

G. L. CAMERON,

Chairman.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office," 314 Somerset Building, Winnipeg.

Economic Aspects of Dental Practice

by W. C. STILLSON, D.D.S., F.A.C.D.,
Cleveland, Ohio

THE dentist usually graduates at about twenty-five years of age and spends the first five years in becoming established. He then enters upon the twenty-five year period which might be called the harvest time of his life—we will say from thirty to fifty-five. From fifty-five to sixty his practice usually declines. After sixty he may do well to make expenses. Here, other types of professional and business men have an advantage over him, for their very existence does not entirely depend upon keen eyes and a steady hand.

The dentist must have a definite understanding of the principles of business administration. He has certain definite objects to attain in the discharge of his business duties. He must fully equip his office. He must provide funds for maintenance, supplies and depreciation. He is expected to provide the necessities of life for his family and himself. In addition to this he should establish funds for education and recreation, and since the Social Security Act makes no provision for him, he should, if possible, lay aside something for a rainy day, or for that time when he grows old and tired.

No substantial dental practice can be built in an office that does not possess an air of cleanliness and efficiency; nor can any practice be built upon a founda-

tion of poor and unsatisfactory service.

Diligence is a most admirable quality in the building of a dental practice.

It has always been my custom to prepare myself, by calling to mind, immediately before the patient comes into the operating room, some occasion or individual in which we may have a common interest. Patients are often surprised and secretly greatly pleased to find that some particular thing or incident relative to a friend or member of their family has been remembered. I refresh my memory with the names of the children in the family. Most human beings are more interested in themselves and their possessions than in anything else in the world; and appreciate and enjoy to the fullest extent any interest that some one else may exhibit in them. In this way and by this means strong ties are built. However, the patient's own teeth are more interesting to him than almost any other topic of conversation during an appointment. They enjoy learning this, that or the other, about their own teeth. They enjoy it particularly, if they gather from what is said, that you are honest and sincere in your efforts and in your interest in them.

And so the entire matter could be summed up in a sentence—have an in-

terest in people and things and in that way keep yourself interesting.

As a practical means of retaining a practice, I have found it to be decidedly advantageous to keep a call list of patients. This is a thing that must be built up. Many use a form of notification card. I much prefer to use the telephone.

In studying my practice for the last ten years, I find that my actual overhead cost, including porcelain teeth and precious metals, is approximately from 30 to 33 per cent of my gross receipts. I am told that the cost of operating some offices runs as high as 40 or 50 per cent of the gross income.

A charge should be made for examination, as this service is as important as any actual operation in the oral cavity, and the fee for it should be computed upon a time basis.

The best way to avoid losses through the adjustment of accounts is to make an estimate and have a thorough understanding when the examination is made.

In my experience it has been very unsatisfactory to turn accounts over to attorneys or collection agencies. If the dentist is unable to make collection himself, he may as well consider it a loss.

A great many uncollectible accounts may be avoided by giving careful and accurate estimates and securing credit ratings whenever possible.

The x-ray plays a large economic part

in dental practice, and every dentist should own his own machine.

A mouth mirror, exploring time and trans-illumination should first be used in every examination, inspecting every surface, noting all irregularities, all possible cavities, placing question marks where there is some doubt as to the existence of a cavity or non-vital tooth, noting the gum tissue, the occlusion, and all other factors that enter into a general examination of the teeth and mouth.

There is the question of bite-wing examination for young adults. Anyone of experience knows that in most cases these should be made every six months.

Novocaine has become indispensable in dental practice. It is not only a factor in the elimination of pain in and about the teeth in all operations, but it has become an economic element, conserving the nervous energy of both operator and patient.

One factor of greatest value in the conducting of any dental practice is systematic routine. Every day should be a day unto itself. When the office is closed at night, all records should have been made, all aggravations or unpleasant experiences should have been locked up, and locked out of one's mind until the next day arrives to start again with a clean slate.—*Abstract of paper appearing in the Journal of the Ohio State Dental Society, August, 1937.*

When men think themselves clever enough and strong enough to run the world, or even to organize their own lives, without reference to the will and purpose of Him who made the world, they are pretty sure to end in disaster, or something like it.

That is just what is happening today. Mankind in almost every nation has thought itself wiser than God, and where is its worldly wisdom leading it? No wonder the young, who have got to live out their lives in the world which the cleverness of man has made, are pessimists.—The Bishop of Bristol in the "Pathfinder."

The Forum

• SEEING RED

by EDWARD SAMSON, L.D.S.R.C.S. Eng., F.C.S.

I AM not a prude, and I trust that, in no application of the word, might I be called a prig. In fact, conversely, I believe that there is far too much effort to reform proselytize and generally mend the other person's way of life. Yet, despite this tolerance which I hope I practise as well as preach, as a dentist, I loathe lip-stick.

I see no reason why women should not paint their lips in any hue they wish. Neither am I averse to their using cosmetics to hide those defects so cruelly left by nature where tradition has led us to expect flawless beauty. In truth, I think that the modern woman is somewhat artless in her application of colour to her face. True art, we are told, is to conceal art; therefore the subtle use of mascara, rouge and powder to deceive the observer into believing that the cheeks are blooming with honest roses, the eyes dark with naturally gorgeous lashes and the skin soft with an inherent peachiness, the lips cherry ripe from birth—to use these aids in such clever deception would be philosophically more clever—intellectually more brilliant. But since women will draw the hard lines of a native tattooing on their lips, in false cupid's bows and formal, architectural curves, I must despise them, but, I insist, only in my dental life.

Into my surgery there will rush a mad blaze of colour. It is a modern girl. That description says all. She is carefully painted according to the dictates of her tribe. And why not, if it pleases her? Yet how it displeases me! She sits in my chair with all the poise of a marble

Venus, though, I insist, much more coloured.

At the sign of the approaching mouth-mirror she parts the crimson ribbons which are her lips. Her incisor teeth may carry a pinkish tinge due to minute deposits of lip-stick, proving it, despite the assertions of the advertisements, to be an unfast dye. I am not shocked by this defilement of nature's work. I have seen it too often. It is the way in which my subsequent endeavours are thwarted that makes me see red, bright red, lurid crimson everywhere.

My probe searches for cavities, as probes do, and soon emerges from the uncharted country of milady's mouth with a red coat along its shining shaft. This, strangely enough, proves to be a fast dye. The peculiar nature of lipstick is that it comes off the lips with the greatest of ease but adheres tenaciously to dental instruments. However, what, after all, is a red probe! It lends a touch of colour to our dull lives and no doubt suits the décor of the modern surgery. But when my mouth mirror adopts a dull red fog I begin to loathe all hues of the spectrum.

It is now impossible to see cavities, teeth or anything but red.

A mist is before my eyes and I feel like the amateur photographer who develops his films by that only dismal light he is allowed. Frantic, I am almost inclined to send the painted beauty away, telling her that her teeth are perfect. But the ethics of a noble profession master my emotion. Manfully I wipe away many strata of thick, red salve on many hundreds of dental napkins, and begin again my explorations.

Time and again the little mirror comes

forth blushing with shame at its inability to reflect anything but the carmine mist. Just then the probe slips into a vast cavity. Here, at last, is something to work upon, something which might be achieved by touch rather than vision.

At the end of half an hour, in which my hatred of artificial aids to beauty has mounted to a genuine fanaticism, a filling is complete. It is a beautiful, shining thing with a dull red patina. My handpiece presents the appearance of a weapon of carnage. The slaughter is over and the sword is stained with blood. Around us is a profusion of dental linen, horrid with its symbolic stains of a bloody battle. The mouth-mirror has given up the fight and lies a-bleeding, while the tinted probe tells its own story of a war well lost, a story to prove that peace hath her victories no less glorious than war, but a victory for the beauty specialist. And worse than all, my fingers and thumbs are steeped in red, deep-dyed with the indelible stains of woman's charm.

You may think, dear reader, that I take my defeat badly. You may despise me for not accepting the little trials that are all in a day's work. And I would accept your reproaches, even admitting that I am a poor loser, if it were not that experience has taught me that my moment is to come. True, I have seen red, and it was horrible. True, too, my hate of all things artificial has driven me nearly to a point of "going red" so that I could slaughter all capitalists who can afford these adventitious aids to loveliness. But, as I said, my moment is to come.

When the little lovely rises from the chair, with a satisfied smile, she turns to my large mirror. They all do. And then she realizes what treachery lies in the innocent lipstick. Where once she flaunted the delicious curves of carefully pencilled lips, a large red smear travels

across her cheek towards her left ear. She wears the expression of one who has suffered facial paralysis. It is a queer distorted leer that faces her from the mirror. She is, in verity, laughing on the other side of her face.

In a frenzy of frustration she rubs and scrubs. Feverish with horror she scrapes and scrapes, then powders, but nothing will reduce the vivid, red smile to normal. Like the Mona Lisa she carries the enigmatic expression forever. The temperamental lipstick, sometimes so adhesive, sometimes so unattached, is now at its most obstinate. Disloyally it is biting the face that fed it, and the painted Venus leaves in fury and a streak of scarlet.

When all is quiet again my victory tastes less sweet. And when I look at my mirror, probe and handpiece, I am not so sure which of us has won. And when, two hours later, I have scrubbed the skin from hands, dyed three towels forever red, removed every one of the bristles from my nail-brush, in fact, when all is gone but the red on my fingers, I know then how bulls feel about red. — *The Dental Magazine and Oral Topics*.

• CONCERNING THE "VITALITY" OF THE CALCIFIED DENTAL TISSUES

by CHARLES F. BODECKER, D.D.S., F.A.C.D.
and WILLIAM LEFKOWITZ, D.D.S.

*Division of Oral Histology, Columbia University
Dental School, New York City.*

THE placing of dry dyes in vital teeth of dogs and man demonstrates the presence and diffusion of "dental lymph." Maturity, abrasion or caries reduces greatly the permeability of dental tissues. The removal of the dental pulp temporarily increases the permeability of the dental tissues, indicating that this organ is active in regulating the diffusion of this fluid.

These observations suggest the presence of a physiologic activity in the dental tissues.—*Summary of paper in J. D. Res., December, 1937.*

• "CALCIUM METABOLISM
AND TEETH"

IN THE Journal of the American Medical Association of March 19, 1938, there appears a contribution by Isaac Schour, D.D.S., Ph.D., Chicago, under the heading "Calcium Metabolism and Teeth." In this contribution Dr. Schour brings to our attention some facts concerning the relationship between diet and the teeth.

Miller's disclosure of the bacterial influence put an end to speculation, superstition and the myriad of fanciful theories which for ages had been advanced as the cause of tooth decay. From then on attention was concentrated on efforts to protect the teeth by removing from their surfaces those elements which it was believed invited bacterial retention and growth. Quite logically, mouth hygiene was accepted as the best means to bring this about, and for many years the dental profession and its allies carried on a persistent endeavour to make the public conscious of the importance of mouth cleanliness as a protection against caries.

When it became apparent that teeth decayed despite our best efforts toward maintaining cleanliness, we turned our attention to diet and nutrition in the belief that proper foods properly assimilated would provide the necessary protection. The extreme claims and the assuring promises which were made by dietary advocates led to widespread prescribing of foods on a basis of their vitamin or mineral content and more recently of pharmaceutical preparations containing the same elements. For the most part these measures were employed on the theory that the resistance to decay could be built up by fortifying the tooth structure from within.

It is well to record here that:

1. Teeth protected by normal enamel resist decay on those surfaces that are accessible to the cleansing processes, be

they manual or those accomplished by food mastication.

2. While mouth hygiene may have a protective or retarding influence, caries will occur in spite of our best efforts for mouth cleanliness. (This in no way refutes the statement that "A clean tooth does not decay" but does suggest that our efforts have not enabled us to maintain the same degree of cleanliness on the caries susceptible surfaces as we are able to maintain on those surfaces which resist decay.)

3. Tooth decay has persisted among our people in the presence of faithful adherence to supposedly correct dietary formulae.

Not all of those who believe that food and nutrition are vital factors in protection against tooth decay accept the theory that resistance is built up from within the tooth. If this were so, filling of teeth instead of affording protection would be of little avail and Black's principle of "Extension for prevention" in cavity preparation would have proven a fallacy.

Schour in his article states, among other things, "Present evidence establishes the fact that the adult and fully erupted tooth is as a whole not subject to modification in structure or calcification by changes in calcium metabolism. The calcium content of dentine may be slightly increased with age by secondary calcification. However, unlike bone, enamel and dentine are not storehouses of calcium and are not subject to withdrawal."

He states further, "Present evidence has not established a correlation between calcium metabolism and caries and offers no factual basis for the view that the incidence of caries is increased because of the metabolic changes that occur during pregnancy. Clinical and statistical evidence shows a similar incidence of caries in pregnant women and in non-pregnant women of corresponding age."

There is little doubt but that changes

in diet may be followed by alterations in mouth conditions and that such alterations in all probability play an important part in protecting teeth against decay. In sifting out the none-too-well supported theory of "resistance to decay through internal changes in the teeth" Schour's presentation will undoubtedly stimulate concentration on studies of the more tenable theory of "environmental influence." That this field holds out much promise is evidenced by the reports of recent investigations at Northwestern University and the University of Michigan.

In the final paragraph he states, "The employment of calcium therapy in dentistry *per se* is not justifiable. There is no evidence to show that alterations in calcium metabolism give rise to oral or dental disturbances without producing other systemic symptoms. When systemic manifestations are present, the responsibility for calcium therapy should rest with the physician." Dentists would do well to heed this advice because prescribing for a dental condition may result in aggravating other disturbances which may be present, unknown to the dentist. Such prescribing should only be done by or in co-operation with the physician.—*Editorial by Alfred Walker in N.Y. Jour. of D.*

• WHO GOES TO THE DENTIST? DEMAND VS. NEED

AS PART of the National Health Survey conducted by the United States Public Health Service, with the aid of grants from the Works Progress Administration, a supplementary schedule was utilized in one city (Detroit) to determine the amount and kind of dental care received by a representative sample of the population (70,554 persons, 3 years of age or over were surveyed). Visits for cleaning of the teeth were excluded. The data were related to age and sex of per-

sons, and socio-economic class of the household head.

According to this survey, 33 per cent of the families interviewed had actually visited the dentist during the previous year. However, only 22 per cent of the visits were for reasons other than extractions only. Eight per cent of the persons in the families interviewed had never visited a dentist at any time.

The percentage of persons reported as having seen a dentist in the year before the date of the canvass (exclusive of visits for extractions only) varied greatly with the socio-economic class of the household head; from 42 per cent for professional families to 16 per cent for unskilled workers.—*The New York Journal of Dentistry, July-August, 1938.*

• SYSTEMIC AND BLOOD FINDINGS IN PARODONTOSIS

By HAROLD GOLDSTEIN, D.D.S.
Dept. of Oral Diagnosis, Dental School,
Univ. of Maryland.

(Summary of Paper in *Jour. of D. Res.*, Feb., 1938).

1. Diseases such as diabetes melitis, lues, gastro-intestinal ulcer and cancer, were found with a decidedly greater frequency in 200 parodontosis-involved individuals than in a similar number of parodontosis-free individuals. 2. Arthritis and cholecystitis were present more frequently in the parodontosis-free individuals. 3. Blood counts revealed higher leukocyte counts (8,000 or over) more frequently in individuals with parodontal disease. 4. Erythrocyte recordings were in general, the same for both groups. 5. A greater number of parodontal diseased cases were found with lower blood-pressure; a greater number of parodontosis-free individuals with higher blood-pressure. 6. The relation of class of occupation to the frequency of parodontal involvement pointed to a much lower incidence of parodontal disease in those who belong to the higher income group.

• **THE EFFECT OF TOBACCO ON THE BLOOD PRESSURE AS MEASURED BY A STANDARD SMOKING TEST**

By E. A. Hines, Jr., M.D., Division of Medicine, and Grace M. Roth, Ph.D., Assistant in Clinical Physiology—Mayo Clinic.

(Summary of paper in *Proceedings of the Staff Meetings of the Mayo Clinic*, August 17, 1938)

CIGARETTE smoke produced an elevation of blood pressure in the majority of individuals tested by a standard smoking test. The excessive rises in blood pressure from smoking occurred only in the patients who had evidence of an inherently hyperreactive vascular system as measured by the cold pressor test. The effect of smoking tobacco on the blood pressure, however, is not due entirely to a nonspecific stimulus acting on a hyperreactive vascular system but is the result, at least in part, of some element in the tobacco smoke which produces vasoconstriction.

• **THE DANGERS OF TREATING "INDIGESTION" BY ADVERTISED NOSTRUMS**

A. B. RIVERS, M.D., Division of Medicine: Physicians need no statistical evidence to convince them of the importance of symptoms of dyspepsia. Scarcely a day passes in which it is not necessary for them to give an opinion regarding the cause of some patient's gastronomic indisposition. The importance of dyspepsia to the laity can readily be appreciated by considering the various advertising mediums which are utilized to bring to their attention various means of achieving gastro-intestinal comfort. Almost any evening, during the height of the radio programs, it is possible to hear four or five smooth-tongued announcers advising rapid and inexpensive methods of curing gastro-intestinal difficulties. Drugstore shelves are filled with attractively displayed means of curing indigestion. The highways are bordered by

signs indicating how the passers-by can quickly return to the happy state wherein they can again enjoy their food. Magazines and newspapers daily carry therapeutic advice regarding gastronomic disturbances for the benefit of their dyspeptic readers.

Recently, at the Clinic, we have completed a survey relative to the incidence of dyspepsia among a large number of patients presenting themselves for examination at the Clinic. We have found that almost half of the patients between the ages of thirty and sixty years included among their complaints that of dyspepsia. Although we found that in youth the cause of these symptoms frequently was not serious, we were impressed with the potential gravity of the symptoms of dyspepsia beyond the age of forty years. We were impressed by the fact that about half of the men forty years of age and older, who came to us primarily because of dyspepsia, are found to have peptic ulcer, cholecystic disease or carcinoma of the gastro-intestinal or accessory gastro-intestinal tract. Two of five women of that age group are found to be suffering from gallbladder disease, peptic ulcer or cancer of the stomach, pancreas or intestine. One of six men of this group is found to have carcinoma of the stomach, pancreas or intestine. One of eight actually has carcinoma of the stomach.

It is startling to think of the harm that might be done to dyspeptic people who reach the age of forty years but who seek aid in the advice given by the venders of therapeutic nostrums. It would seem to us that there falls on the medical profession the serious responsibility of educating laymen concerning the dangers of heeding nonprofessional advice that they cure themselves of dyspeptic unhappiness, particularly if they have reached middle age. Patients of that age should be made to realize that it may be very dangerous to procrastinate in seeking the advice of

their physicians and, instead, trying to cure their indigestion by utilization of methods of treatment suggested by advertisers. They should understand that by taking these short cuts in treatment they may delay their cure or actually jeopardize their chances of survival if their symptoms, which they may have masked temporarily by their inadequate measures, should be caused by some malignant process. Physicians, too, should realize their responsibilities in making an accurate diagnosis when called on to evaluate the symptoms of dyspepsia of patients who have reached middle age.—*From Proceedings of Staff Meetings of the Mayo Clinic, February 9, 1938.*

• DIET

NATURE surely intended that man should be able to maintain dental health in all places fit for human habitation, and I cannot understand the reasoning of those who, if they are consistent, would endeavour to prevent dental caries by feeding to the Maoris milk or cod liver oil, or both, or to people in temperate zones quantities of orange juice. I believe that the only dietary investigations which are of value are those which attempt to promote tooth resistance by utilizing the resources naturally available to people in their own particular part of the world.—*Robert E. T. Hewat, D.D.S., (N.Z.), in the N. Z. Dental Journal.*

DENTAL CAMPAIGN IN SOFIA



CARNIVAL FIGURES parading through the streets of the Bulgarian capital as part of a scheme to make the populace more tooth-conscious. The leading figure represents a carious tooth (obviously in pain!) followed by a sound tooth (all smiles) behind a toothbrush and in between two tubes of toothpaste.

By courtesy of Dental Magazine and Oral Topics.



PRINCE EDWARD ISLAND

SASKATCHEWAN

Editor—M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S



D. T. Wayne, Charlottetown

QUEBEC



F. W. Saunders, Montreal

ONTARIO



T. R. Marshall, Toronto



F. C. Harwood, Moose Jaw

NOVA SCOTIA



S. G. Ritchie, Halifax

ALBERTA



John Clay, Calgary

NEW BRUNSWICK



J. F. Edgcombe, Saint John

MANITOBA



J. F. Morrison, Winnipeg

BRITISH COLUMBIA



J. S. Bricker, Vancouver

Canadian Dental Fall Clinics

Within recent weeks three dental conventions have been held in Eastern Canada, namely, those of the Eastern Ontario Dental Association at Kingston, the Fall Clinic of the Montreal Dental Club and the Annual Meeting of the Nova Scotia Dental Association in Kentville.

The writer has just returned from attending the Montreal meeting and is enthusiastic over the excellence of this clinic, which was planned and carried out by the brilliant convention director, Dr. M. L. Donigan, who was ably assisted in his endeavour by Dr. R. E. McMahon, director of Exhibits; Dr. A. R. Winn, in charge of Registration; Dr. F. W. Saunders who planned the Table Clinics; and the other officers in this well organized group.

The President, Dr. C. H. Barr, welcomed the guests and in his splendid address pointed out that in spite of diet regulations, the daily use of vitamins and other preventive measures, caries and periodontal lesions were still rampant, and that parents were asking us what more could be done to improve this condition. Dr. Barr affirmed that the problem was our problem and that it could only be solved through research, which meant that greater endowments to our Universities must be forthcoming for this purpose.

There were 265 dentists in attendance, over a hundred of whom came from out of the city, being registered from Charlottetown in the east to Winnipeg in the west.

The following carefully chosen essayists, from the United States, held the sustained interest of the Convention: Dr. John B. La Due of Chicago, who spoke on "Dentures"; Dr. Ralph Cooley of Houston, Texas, on "Porcelain"; Dr. Gustav C. Tassman of Philadelphia, on "Children's Dentistry"; Dr. Ralph F. Sommer, Ann Arbor, Michigan, on "Pulp Conservation," and Dr. Le Roy M. Ennis of Philadelphia on "Roentgenology." This program was well rounded out by the inclusion of two distinguished, Canadian dentists, both of Toronto, Dr. Charles H. M. Williams who spoke and gave a clinic on "Periodontia," and Dr. O. S. Clappison who gave an illustrated lecture on "Occlusal Correction."

One somewhat unique feature of the Convention was the holding by three of the essayists, of three continuous clinics each day of the Convention, for two hours. The classes were limited to 25 members, with an entrance fee of \$10.00. These classes were completely filled and were greatly appreciated. There were also 10 very interesting table clinics, all given by dentists living outside of the Province of Quebec.

Further interest was added to this meeting in that the Adirondack Dental Society held its annual meeting in conjunction with the Fall Clinic.

Perhaps the secret of this very successful convention is the fact that it meets in the same place each year, and the officers, with the exception of the president, are not changed, granting that their work is efficiently done. As a result of this efficiency one feels an indescribable drawing force which makes one determined not to miss the Annual Clinic if it is at all possible to attend.

Dr. Stephen A. Moore, President of the Canadian Dental Association, was a guest at this Convention, and brought to the members the most cordial greetings of the dentists of Canada, and bespoke for our National Association the most enthusiastic support of every practitioner in our Dominion.

At the Eastern Ontario Convention, though composed of a smaller group, the officers were none the less efficient and carried out a splendid program which will be long remembered by those who were able to attend. One welcome characteristic of this meeting was the outstanding and outspoken enthusiasm exhibited towards the Canadian Dental Association. This vision and support are appreciated greatly by the dentists from coast to coast who are thinking these days in terms of a great, Canadian dental profession, organized and functioning as a national unit.

At this convention it was decided to hold all future meetings in Ottawa and thus derive the obvious benefits accruing from the plan of meeting each year in the same centre.

The Kentville meeting, in Nova Scotia, also had many interesting features. In addition to a very practical, technical program much consideration was given to three outstanding reports, the comprehensive reports

of the Oral Hygiene Committee by Dr. Hennigar and Dr. MacIntosh; one by Dr. A. W. Faulkner on the Delegates Meeting of the Canadian Dental Association, and one by Dr. Oxner, President of the Dominion Dental Council, reporting the proceedings of that Council's meeting held in Vancouver early in July. Dr. Oxner stated that his viewpoint had changed since sitting at the round table with the British Columbia men and realizing more clearly their problems and difficulties. It is usually the case that when statesmen or business executives get together in personal conference, a better understanding is attained. Dentistry is no exception. Let us plan to meet often and all work for the good of our profession throughout Canada.

BOOK REVIEW

Accepted Dental Remedies—by the Council on Dental Therapeutics of the American Dental Association. Cloth, 283 pages. Published by the American Dental Association, 212 East Superior St., Chicago, Ill., 1938. Price \$1.00.

This book lists and describes those pharmaceutical articles which stand acceptable to the Council on Dental Therapeutics. The list includes those official drugs and preparations which are considered to be of greatest usefulness in the field of dentistry, and also non-

official articles marketed in conformity with the rules of the Council.

This book should serve as a useful guide to the practising dentist in his choice of dental medicinals.

The section on Formulas and Prescribing Suggestions has been enlarged. The chapter on Vasoconstrictors has been revised and an article dealing with Cevitamic Acid has been added.

This book should be in the hands of every dentist and dental student.

—M. H. G.

CORRESPONDENCE

The following is a copy of the letter received by the Editor from the Editorial Secretary of 'Life' in reply to the letter which appeared in the last issue of the Journal.

To the Editor of the Jour. of the C.D.A.

We greatly appreciated your kind letter and the frank criticism you make of our July 11th pictures, "Oh, Doctor". I can assure you that LIFE is very interested in health problems today, and would not willingly detract in any

way from the advances made in dental science.

I am enclosing copy of a letter to Dr. MacDonald which will, I think, explain our feeling about these pictures to you. I hope it will reassure you about our policy in the matter.

Editorial Secretary.

Letter to Dr. MacDonald from 'Life'.

Dear Mr. MacDonald:

I hope you will forgive this belated reply to your letter. Unfortunately, our correspondence has been so heavy these last few months that I could not be more prompt.

The Editors have asked me to tell you how much we appreciate your writing. Such constructive criticism as yours is always particularly welcome and we are glad to have any possible error in judgment pointed out to us.

Frankly, we did not consider the pictures, "Oh, Doctor" from the point of view of the dental profession and we greatly regret that they should seem derogatory or harmful. The "Pictures to the Editors" section is usually devoted to amusing or interesting contributions from readers and is not intended to be taken too seriously. We do, however, agree with you that in this case, special thought should have been given to the possibility of

an unfortunate association which might seem detrimental to dental science. Most assuredly, none was intended and we deeply regret any such impression.

LIFE has, from its first issue, co-operated with the medical profession in publishing a series of health and medical articles for its readers. It is very kind of you to offer us the services of the Greater New York Bureau for Dental Information and we shall be happy

to have your assistance in future. I hope that we may have occasion to call on you for material on a dental article shortly.

Sincerely yours,

ANNA GOLDSBOROUGH,
Editorial Secretary.

Dr. C. Franklin MacDonald, Chairman
Greater New York Bureau for Dental
Information
501 Madison Avenue, New York, N.Y.

NEWS FROM THE PROVINCES

ONTARIO:

Eastern Ontario Dental Association Convention—Sept. 26 and 27, 1938.

The Eastern Ontario Dental Association held its 61st Annual Convention in Kingston on September 26 and 27. Dr. Harry Stewart, a Fellow of the Society and Mayor of Kingston, opened the convention. His remarks were brief but sincere and friendly, so much so that the meeting seemed headed for success right from the beginning. President G. V. Tario of Pembroke, presented his address as follows:—

We are about to open the 61st Convention of the Eastern Ontario Dental Association and it is my duty, as well as my pleasure, as president, to greet you and extend to one and all a hearty welcome. It is a source of gratification that so many have turned out to make this a truly successful meeting. We hope that the program submitted will amply repay you for the time and expense involved in coming.

Year after year new ideas come to us; new problems arise to mingle with our former ones. Some, at first, seem to be impossible of solution, but when we come together, talk things over and obtain the other fellow's viewpoint, we secure results thought unattainable.

The relief question of the last number of years has not only brought to our attention the necessity of social, but also of physical security, and the medical and dental health of our people is being considered to a greater extent than ever before. Socialized dental service is a question which at present is demanding much study, and it is in groups such as ours that the subject should be discussed,

pro and con, and the results covering the discussion sent to the larger bodies to lend our aid in the satisfactory solution of the problem. Surely there is some means of bringing more good dentistry to the masses, when many of our confrères are barely eking out a living from their work, for want of patients.

Dr. Morris Fishbein, Editor of the American Medical Association Journal, writing on Health Insurance for the American People, is quoted as follows:

"More than anything else, the medical and the dental profession fear, as part of a communal medical and dental service, a deterioration in the quality of care that would, in the end, be exceedingly harmful to the American people. All that sickness insurance plans offer as dental service are exodontia, plastic fillings, and prophylaxis. More than 90% of the population earned less than \$3,000 per family in 1929, yet this same group of people furnished 60% of the practice of 86% of the dentists in this country. There are few, if any Americans, who are willing to accept the kind of dentistry that this insurance offers them and who would be satisfied with it after they had paid for it."

If health insurance is to come to Canada, we as dentists, should have our ability to render health service recognized as second to none. Dentists should be the ones to formulate the plans for such a service, rather than be an adjunct to a plan inaugurated by outsiders. Consider the dental relief orders as presented to us today! What are we allowed—or ordered to do?—Repair an occasional denture and extract teeth—often the first break in a dentition. It is called relief, but in

reality it is the start of destruction. This thought is left with you—contemplate the inevitable result and let us inject new spirit into our united endeavours. Make the E.O.D.A. a more ambitious and enterprising organization. It cannot be done by your officers alone. It requires the assistance of each and every member, and it is this co-operation we are hoping will be forthcoming at this convention.

May I at this time welcome our clinicians. They are all men in active practice, and as such, I know they will appeal to the members of our society. Practical work will be stressed, and I would urge you to give them your whole-hearted attention. They are friends among friends.

I would also welcome our exhibitors and urge you to give them consideration and notice who our advertisers are in the program. They are all contributing to the success of our Society.

The executive committee this year has been exceptionally efficient and may I, just in closing, thank its members for their splendid support, and last but not least, I want you to know how much I have appreciated the honour of being President of the Eastern Ontario Dental Association.

Dr. F. L. Cole, Dr. Chas. H. M. Williams and Dr. W. L. Chalmers were guest speakers from Toronto. Each speaker seemed to be at his best, perhaps because of the friendly attentive audience of 75 or more fellow dentists in Eastern Ontario. The Society presented each speaker with a fine piece of baggage as a token of its appreciation.

Dr. W. A. Jones, M.D., F.R.C.P.(C), F.B.A.R. of the Department of Radiology of the Ontario Institute of Radiotherapy at Kingston General Hospital, presented a fine lecture dealing with

- (a) Multilocular cystic disease of the jaws.
- (b) Malignant lesions of the lip and oral cavity.

This was a very excellent presentation as Dr. Jones had some patients to show clinical appearance.

There were a number of guests visiting the convention: Dr. S. A. Moore, President of Canadian Dental Society, Dean Walsh of McGill University, Dr. Campbell Morris, Presi-



V. L. TARIO

dent of Montreal Dental Club, Dr. Morton, Vice-President of Ontario Dental Society, Dr. Ed. Guest, Chairman of the Public Dental Health Committee of the Ontario Dental Society, Dr. E. C. Veitch, President of the Board of Royal College of Dental Surgeons of Ontario, Dr. H. P. Huycke, President of Kingston Medical Association, and many others. Dr. Moore brought greetings from the Canadian Dental Association and expressed the hope that the E.O.D.A. Society should continue to thrive, that it had a very definite function in serving the dentists in that part of Ontario. "The Canadian Dental Association seeks to co-operate with you and all other provincial and local societies and has no thought of encroaching upon your duties or privileges," he said. Dr. Huycke brought greetings from the Kingston medical fraternity.

New officers elected were:—

President—J. P. Coupland, Ottawa.

Vice-President—E. B. Sparks, Kingston.

Sec.-Treas.—Roy MacDougal, Ottawa.

Advisory Committee—V. L. Tario, Pembroke; George Hutchison, Ottawa; E. J. Walroth, Carleton Place; W. J. C. Broom, Kingston; Murray Wilson, Perth; Dwight Mallory, Brockville; Theo. Regnier, Rockland.

A resolution was passed to hold future conventions of the association in Ottawa. The concluding event of the program was a round of golf. The following are winners:—

Low Gross—Denco Cup—won by Dr. Beattie, Ottawa.

Low Net—Ash-Temple Cup—won by Dr. McKerracher, Renfrew.

Low Gross, 1st nine—Allen & Rollaston Cup—won by Dr. J. C. W. Broom, Kingston.

Low Gross, 2nd nine—Dominion Dental Co. Cup—won by Dr. McDougall, Ottawa.

Runner-up Low Net — Drs. Woollatt, Toronto, and Dr. Hutchison, Ottawa.

Highest Score on holes 2-8-12—Dr. Gowland, Kingston.

Highest Score any hole, 1st nine — Dr. Chambers, Ottawa.

Highest Score any hole, 2nd nine—Drs. Morrow, Woodrow, Mallory.

The Ladies' Program, under the convener-ship of Mrs. J. C. Duff, was a joint luncheon, trip through Fort Henry, recently reopened, afternoon tea at the Cataraqui Golf and Country Club, and bridge in the evening. The prize winners were:—Mrs. Chambers, Ottawa, and Mrs. Walroth, Carleton Place.

Dr. William George Switzer Passes Away

The death of Dr. William George Switzer of the Dental Faculty staff of University of Toronto comes as a shock to a legion of colleagues throughout Canada who knew him so well. Although he had been ill for some months he complained little. His passing seems to break a bond of deep affection between undergraduate days and the present for those who have gone through the Dental Faculty since 1920. To think of him, one remembers his outstanding ability, indeed an authority in his work, yet a quiet man. He was humble to a degree, sincere, friendly to everyone. He possessed an enviable sense of humor. He shunned display and public applause. His life long intimate friend, Dr. H. A. Hoskin, has said of him, "He trusted others as he himself could be trusted." Dean

Mason paid him this tribute, "He possessed outstanding ability and I do not know a member of the staff who could be missed more by students who have passed through our school."

Dr. Switzer was a native of Halton County, Ontario. He graduated from the School of Dentistry of the Royal College of Dental Surgeons of Ontario in 1896. Following graduation he began practice in Sudbury. He enlisted in the Canadian Army Dental Corps in 1916 and served overseas throughout the Great War. On his return home he joined the staff of the School of Dentistry in Toronto in 1920. His official position was that of Associate Professor of Prosthetic Dentistry. He was a member of the Canadian Dental Association, the Academy of Dentistry, Toronto, and a life member of the Ontario Dental Association. As recreation he greatly enjoyed a game of golf or a few days fishing.

At his funeral floral tributes were beautiful and many. The Canadian Dental Association, the Ontario Dental Association, the Academy of Dentistry, XI PSI PHI dental fraternity, Faculty of Dentistry, Dental Nurses Alumnae and Student's Parliament were some of the representative groups that sent tributes. Dr. H. J. Cody, President of University of Toronto, conducted the funeral service to Mount Pleasant cemetery. His widow, Irene LaTour Switzer, is joined in her sorrow by a wide circle of friends.

T. R. M.

Complimentary Dinner

Dr. M. H. Garvin of Winnipeg was tendered a complimentary dinner at the Granite Club on October 17th by about 40 of his Toronto colleagues. Dr. Stephen A. Moore, President of the Canadian Dental Association, who came down from London especially for the occasion was also a welcome guest. Dr. Garvin spoke of the problems of the Canadian dental profession and outlined some of the benefits of a well organized and strongly supported association. He indicated that in his opinion the Canadian Association must continue to make progress and speak for dentistry in Canada. The amount of voluntary service that any man or group of men can give for promoting professional advancement is limited. It was sug-

gested that a full time secretary be employed by the association to promote and co-relate all activities of the Canadian profession. This of course is financially impossible without greater income. If every dentist in Canada subscribed one cent a day, approximately \$14000 would be available. If five cents a day per dentist in Canada were subscribed annually to a national association fund the officers of the C.D.A. could really make the association worthy of the name. It must be as Dr. Moore says—"The Canadian Dental Association is at the crossroads and it's not going back."

Dr. Vernon Fisk, newly appointed chairman of the Journal Committee acted as toastmaster. Dean Mason, Dr. A. J. McDonagh, Dr. Harry S. Thomson, Dr. J. S. Lapp, Dr. E. C. Veitch and Dr. A. E. Higgins made short addresses.

T. R. M.

London Clinic

During the summer months students of the Beck Collegiate and the Technical School of London were accommodated by dental clinics operated by the Board of Education. It was planned to conduct clinics for the other secondary schools in the early fall.

Dental Nurses

The October meeting of the Toronto Dental Nurses Alumnae Association was held at the Women's Union on October 11, Miss Marjorie Joyner presiding.

Dr. S. J. Lesco, outstanding orthodontist, was guest speaker and conducted an open discussion after his address.

Refreshments were served by the social convener, Miss Eleanor Crerar.

NOVA SCOTIA:

Annual Convention

The forty-eighth annual convention of the Nova Scotia Dental Association was called at the Cornwallis Inn, Kentville, September 5, 1938, Dr. F. R. Duxbury presiding.

After the president's report that of the Provincial Dental Board was presented. This report showed a registration of 182 members, and also showed that the financial status of the Association was very satisfactory. A re-

commendation in the report that the fees for registration be changed to conform more nearly to those of other Provinces, was passed.

The business meetings were almost entirely taken up with discussions of the report of the D.D.C. representative, dealing with the radical changes made by that organization, the report of the Oral Hygiene Committee presenting the magnificent results attained by them and Dr. Harry Thomson during their campaign, and finally the able and very comprehensive report of the delegate to the C.D.A.

Election of officers resulted as follows:—

President—Dr. G. V. Turnbull, Digby.

Senior Vice-President—Dr. R. M. Langille, Truro.

Junior Vice-President—Dr. J. A. MacLeod, Bridgewater.

Secretary—Dr. J. S. Bagnall, Halifax.

Provincial Dental Board—

President—Dr. W. H. H. Beckwith, Halifax.

Vice-President—Dr. S. G. Ritchie, Halifax.

Secretary Registrar—Dr. C. B. H. Climo, Halifax.

The clinical program was presented by Dr. Edward Kennedy of New York, Dr. H. M. Eaton, Halifax, and Dr. Ralph Dalglish, Sydney.

The 1939 meeting will take the form of a refresher course to be held in Halifax, at Dalhousie University.

Pictou Dental Clinic

The Dental Clinic Committee of the local Council of Women of Pictou are planning to establish a dental clinic as soon as funds can be raised. It was decided to hold a telephone bridge in aid of the Clinic during the latter part of October.—*Eastern Chronicle*.

BRITISH COLUMBIA:

Resumé of Recent Events

The dentists of the Pacific Coast can look back upon the past summer season with a great amount of satisfaction and pleasure, for not only has the weather been most favourable for their vacation but great opportunities have been presented to increase their dental knowledge. The Pacific Coast Conference, and courses by Dr. Dayton Dunbar Campbell and Dr. Irvin H. Ante have paved the way for more successful practice.

Study Club

The Vancouver Ferrier Golf Foil Study Club has begun its season's sessions of one-half day of operative chair work and evening meetings.

The members of the Ante Course have formed a Study Club. Evening sessions are held weekly to study anatomy and to discuss the technique. Two half days per month are set aside for the practical application. The class is divided into groups of three. Each member will carry through the case to the set up and the most favourable case will be completed. Evening meeting will be held for discussion to iron out the difficulties. The enthusiasm shown points to favourable results.

Vancouver Dental Society

The opening 1938-39 meeting of the Vancouver Dental Society was held on the first Tuesday. Dr. Ralph Hall, the president, outlined the year's work and the meeting stood in reverent silence in honour of the late William James Bruce and Leonard F. Tepoorten.

Drs. George Nimmons and Kirk Oviatt presented a resumé of Dayton Dunbar Campbell's Clinic. The high lights were the chewing in of the wax covered base plate impressions and the establishing of centric occlusion. The general discussion by several of the members made this a most instructive meeting.

Dr. R. L. Pallen, Past President of the Canadian Dental Association, spoke of the accomplishments of the national body and asked the support for the new president, Dr. Stephen A. Moore, London, Ontario.

The meeting opened with the National Anthem, "O Canada", and closed with "God Save the King".

Dr. Pallen Honoured

It has been announced that Dr. R. L. Pallen, of Vancouver, has been awarded a fellowship, by the American College of Dentists.

ALBERTA:

Edmonton Dental Society

The opening meeting of the Edmonton Dental Society was held in the MacDonald Hotel, October 4, at 6.30 P.M.

The program, as follows, was based on the Pacific Coast Dental Conference:

Dr. Janes: Dr. Campbell's Full Denture Technique.

Dr. McQuillan: Full Upper Impression All-Compound Technique.

Dr. McLaurin: Immediate Denture Service.

Dr. MacLean and Dr. McNabb; Amalgam.

Dr. O'Neill: Useful Hints.

Dr. Rooney: Canadian Dental Association and Dominion Dental Council Business.

SASKATCHEWAN:

Annual Election of College

At the annual election for members of the Council of the College of Dental Surgeons of Saskatchewan, the retiring members, Dr. D. J. Brass, Yorkton, and Dr. P. W. Winthrope were elected by acclamation for a further term of two years. The other members of the Council are Dr. W. W. Irwin, Moose Jaw; Dr. E. W. Mounteer, Regina; Dr. W. F. Smith, Regina; and Dr. L. J. D. Fasken, Secretary-Treasurer and Registrar, Regina.

Regina Dental Society

The Regina Dental Society held its first meeting after the summer vacation on the evening of the second Tuesday in September, in the Hotel Saskatchewan. Routine business, including the program for the season, was discussed.

On Tuesday, October 12, at the Hotel Saskatchewan, Dr. W. H. Ibberson of Saskatoon, was the guest of the Regina Dental Society. Dr. Ibberson gave a very interesting paper, illustrated by lantern slides, on certain phases of Exodontia and Oral Surgery. Members of the Moose Jaw Dental Society were also guests of the Regina Society on this occasion, and appreciated both the entertainment and Dr. Ibberson's splendid paper.

MANITOBA:

Winnipeg Dental Society

The opening fall meeting of the Winnipeg Dental Society was splendidly attended, about 70 members being present to listen to Dr. E. Byron Kelly of Chicago, originator of "Kelly's Paste", tell about his successful use of some novel stunts in dental prosthetics. Dr. Kelly is one of the outstanding prosthodontists of

the present generation of clever dental specialists and those in attendance were amply repaid for being present. Dr. Kelly's visit, coming a few days after Dr. Irvin Ante's clinics, which were attended by about 60 dentists, has made these members of the profession feel that they are much better equipped to render first class denture service to the public. It is surprising that out of about 190 dentists in Greater Win-

nipeg only 70 thought it worth while to use the opportunity to learn something from such a prominent member of our profession as Dr. Kelly. So far as Dr. Ante's course is concerned the small fee involved could not begin to pay for the value received and it is hoped that Dr. Ante will return to Winnipeg so that all the others who were not in attendance can make up for the present lost opportunity.

EMPIRE NEWS

GREAT BRITAIN:

People's League of Health Nutritional Research

It is of interest to note that the Association's Advisory Committee on Research has been asked by the People's League of Health to collaborate in an investigation organized by the League, which is at present taking place at ten London hospitals, into the effect of the nutrition of expectant and nursing mothers on maternity, mortality and morbidity. A joint *ad hoc* committee of representatives of the League and of the Association has already been formed, and it is felt that if an investigation of the dental conditions of the mothers can be made it will undoubtedly be of very great interest. The possibility of following up the dental condition of the children is also under consideration.

AUSTRALIA:

Preventive Dentistry

Dr. Annie Praed, in a paper read before the Australian Dental Association, N.S.W. Branch, states that the Dental Health Educational Department now issues its own booklet, "Healthy Mouths", has a section allotted to it in the Health Department's "Baby Book", the Health Week Book, and the Education Department's School Magazine; articles are supplied to the Press; it annually conducts four separate Dental Health Essay Competitions, and is about to add a fifth; broadcasts over seven wireless stations, city and country; gives innumerable addresses by request, and, also by request, is linked up with the Health Department in Health Week, both in Sydney and Newcastle.

Last year, in addition to the annual three-day Popular Dental Health Exhibition, during

Health Week members of the committees gave twelve addresses and five broadcast talks; dental health slides were shown in city and suburban picture houses, and a display was arranged in one of Mark Foy's windows.

Already this year, from January 1 to March 31, 41 broadcast talks and 23 addresses have been given.

SOUTH AFRICA:

Honorary Degree for Distinguished Visiting Dentist

The University of the Witwatersrand has conferred the degree of Doctor of Science, *honoris causa*, on Dr. Milo Hellman, Professor of Dentistry at Columbia University, New York, and a distinguished orthodontist and palæontologist. This is the first occasion when an honorary degree has been conferred on a dentist by a South African University, and although Dr. Hellman is not a South African, and his work has been done overseas, the profession is grateful that the University has seen fit to honour him and, through him, the dental profession. Dr. Hellman's visit aroused very great interest among members of the profession, while the fact that he is a practising dentist and at the same time an eminent anthropologist and palæontologist was a matter for surprise to the general public. At a combined meeting of the Johannesburg Branches of the Odontological Society and the Transvaal Dental Association, Dr. Hellman delivered an address entitled "Orthodontia for the General Practitioner." Although a relatively small number of dentists are interested in orthodontia, nearly one hundred dentists attended the meeting which was easily the largest and most successful ever organized by the local profession.

GENERAL NEWS

Ethics Committee of the C.D.A.

The following members comprise the new Ethics Committee of the Canadian Dental Association:

Dr. G. L. Prestien (Chairman), Galt, Ont.

Dr. M. J. Rudell, Guelph, Ontario.

Dr. E. C. Veitch, 2 College Street, Toronto, Ontario.

Dr. S. A. Moore (Ex-officio), London, Ont.

Dr. F. W. Saunders Honoured

Dr. Saunders of Montreal has been made a Fellow of the International College of Anaesthetists.

Nova Scotia Editor

Dr. S. G. Ritchie of Halifax has been appointed to the position of Associate Editor of the *Journal of the Canadian Dental Association*, to succeed Dr. A. W. Faulkner who has served most faithfully, in that capacity, since the inception of the *Journal*.

Represents Canadian Dentistry

Dr. Stephen A. Moore, President of the Canadian Dental Association, represented Canadian dentistry at the meeting of the American Dental Association at St. Louis, Mo., October 24th to 28th.

Chicago Study Clubs

The Study Club Committee of the Chicago Dental Society has announced the formation of 21 Study Clubs, the tuition fee in each being \$20, except that of Oral Surgery which is \$35. The following subjects are included: Dentistry for Children, Complete Artificial Denture Construction, Simplified Immediate Denture Service, Dental Histology and Pathology for Practitioners, Operative Dentistry, The Use of Amalgam and the Prophylaxis of Periodontal Diseases, Clinical Oral Surgery, Oral Surgery, Orthodontia, Clinical Orthodontia, Orthodontia for the General Practitioner, Cast Partial Dentures, Fixed Bridgework Technique, Porcelain Technique, Fixed Bridgework, Chayes Bridgework, Electro-Coagulation in Periodontia and Oral Diseases, Periodontia, Practical Office and Business Management, Public Speaking for the Professional Man and Speech Defects.

The Chicago Dental Society offers its members a rich opportunity to gain knowledge and security in these courses offered by the Study Club.

Special Session of the House of Delegates of the American Medical Association

The House of Delegates of the American Medical Association met in special session at Chicago, Illinois, on September 16-17. The purpose of calling this special session was for a consideration of the national health program submitted to the National Health Conference recently held in Washington and to such other matters as might be submitted to the House of Delegates.

Five representatives of the American Dental Association were in attendance.

The following are abstracts of recommendations which were unanimously adopted:

1. The establishment of a federal department of health with a secretary who shall be a doctor of medicine and a member of the President's Cabinet.

2. The general principles outlined by the Technical Committee for the expansion of Public Health and Maternal and Child Health Services are approved.

3. Any expenditures made for the expansion of public health and maternal and child health services should not include the treatment of disease except so far as this cannot be successfully accomplished through the private practitioner.

4. Expansion of general hospital facilities where need exists.

5. Recognition of the principle that the complete medical care of the indigent is a responsibility of the community, medical and allied professions and that such care should be organized by local governmental units and supported by tax funds.

Since the indigent now constitutes a large group in the population, it is recognized that the necessity for state aid for medical care may arise in poorer communities and the federal government may need to provide funds when the state is unable to meet these emergencies.

6. Continue to improve the methods and

practices of the Public Health Service and of Life Insurance Companies which have brought us to the present high plane.

7. Establish well co-ordinated programs in the various states in the nation, for improvement of food, housing and the other environmental conditions which have the greatest influence on the health of the citizens.

8. Establish a definite and far-reaching public health program for the education and information of all the people in order that they may take advantage of the present medical service available in this country.

9. In the face of the vanishing support of philanthropy, the medical profession as a whole will welcome the appropriation of funds to provide medical care for the medically needy, provided, first, that the public welfare, administrative procedures are simplified and co-ordinated; and, second, that the provision of medical services is arranged by responsible, local, public officials in co-operation with the local medical profession and its allied groups.

10. In each state a system should be developed to meet the recommendation of the National Health Conference in conformity with its suggestion that "The role of the federal government should be principally that of giving financial and technical aid to the states in their development of sound programs through procedures largely of their own choice."

11. Approve the principle of hospital service insurance which is being widely adopted throughout the country. It is susceptible of great expansion along sound lines, and is to be particularly recommended as a community project, but should not include any type of medical care.

12. Encourage county or district, medical societies with the approval of the state medical society of which each is a component part, to develop appropriate means to meet their local requirements.

13. In addition to insurance for hospitalization it is believed practical to develop cash indemnity insurance plans to cover, in whole or in part, the costs of emergency or prolonged illness. Agencies set up to provide such insurance should comply with state statutes and regulations to insure their soundness and financial responsibility and have the approval of the county and state medical

societies under which they operate.

14. The committee is not willing to foster any system of compulsory health insurance, as it is convinced that such is a complicated, bureaucratic system which has no place in a democratic state. It would undoubtedly set up a far-reaching tax system with great increase in the cost of government. That it would lend itself to political control and manipulation there is no doubt.

15. The committee recognizes the soundness of the principles of workmen's compensation laws and recommends the expansion of such legislation to provide for meeting the costs of illness sustained as a result of employment in industry.

16. The committee is convinced that voluntary, indemnity insurance may assist many income groups to finance their sickness costs without subsidy. Further development of group hospitalization and establishment of insurance plans on the indemnity principle to cover the cost of illness will assist in solution of these problems.

17. As to Insurance Against Loss of Wages During Sickness, which recommendation deals with compensation of loss of wages during sickness, the committee unreservedly endorses this principle, as it has distinct influence toward recovery and tends to reduce permanent disability. It is, however, in the interest of good medical care that the attending physician be relieved of the duty of certification of illness and of recovery, which function should be performed by a qualified medical employee of the disbursing agency.

18. To facilitate the accomplishment of these objectives, the committee recommends that a committee of not more than seven physicians representative of the practising profession, be appointed by the Speaker to confer and consult with the proper federal representatives relative to the proposed National Health Program.

Health Insurance Proposed in Cleveland

Directors of the Academy of Medicine in Cleveland last week proposed a plan whereby employed persons could, by paying from \$7 to \$9 a year, insure themselves against a maximum of \$126 in doctors' bills. Under the plan, subscribers would be insured only against doctors' bills incurred in the course

of hospitalization. The proposal was to restrict such insurance to subscribers of the Cleveland Hospital Service Association, which now has more than 100,000 subscribers. Total fees for both the medical care in a hospital and for hospitalization would be from \$15 to \$18 a year.

Details of the plan are now being evolved and if passed by the membership of the Academy of Medicine is expected to go into effect shortly after January 1st.

In commenting on the proposal Dr. Kingsley Roberts, Medical Director of the Bureau of Co-operative Medicine, stated:

"The fact that such a proposal comes from a medical society is evidence of the tremendous public demand for such services. Such a proposal is a step in the right direction but it is only a partial answer to our medical problems. There are serious deficiencies in the type of plan proposed. It, in no way, improves the quality of medical care now generally available. It completely neglects the tremendous possibilities, now open to us, to practice preventive medicine. If there is developed a complementary plan for complete medical care, the people would then have the

choice of partial or complete protection. Such choice is much to be desired."—*Fr. NEWS RELEASE, Association of Medical Co-operatives, September 13, 1938. (A.D.A. News Release.)*

Pacific Health Corporation Barred

Health corporations sponsoring a socialized medicine plan for profit cannot operate legally in California according to a ruling of the Supreme Court of that State. The majority opinion in the Pacific Health Corporation case held, "It is an established doctrine that a corporation may not engage in the practice of such professions as law, medicine or dentistry." The health corporation furnished members hospital and laboratory service for specified charges, but offered the services only of a certain approved list of doctors.—*N. Y. Jour. of D.*

Health Insurance Approved

Compulsory health insurance to be paid for by specified monthly contributions, established by charter amendment for San Francisco city employees, including teachers and dependants, has been approved by the California State Supreme Court.—*N. Y. Jour. of D.*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

William George Switzer, Toronto, Ontario, age 63, died at Toronto General Hospital, Sunday Oct. 23rd. He was a most beloved member of the Dental Faculty staff and his passing brings a pang of sorrow to the hearts of everyone who knew him intimately.

Mrs. Arthur W. Ellis, 12 Doncliffe Drive, Toronto, died at her home October 8 after a lengthy illness. Many friends of Dr. Ellis regret the passing of his dear wife and extend to him their sympathy at this time.

Ura Garfield Rickert of Ann Arbor, Michigan, aged 57, died suddenly in Chicago on October 21, on his way to the American

Dental Association Convention in St. Louis.

Dr. Rickert was a past president of the American College of Dentists, the Michigan State Dental Society and the International Association of Dental Research. He was Professor of Oral Diagnosis, Therapeutics and Radiology in the School of Dentistry, University of Michigan. He was greatly interested in research and in fact entered the profession of dentistry with the specific intention of devoting his life to solving some of the many dental problems confronting the profession. He was much sought after, as a speaker, by dental organizations throughout Canada and the United States.

The Canadian Dental Association extends its deepest sympathy to those near and dear to him.

... SECTION FRANÇAISE ...

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,

Professeur à l'Université de Montréal

516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P.-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Des dosages au pH en rapport avec la carie dentaire

*Conférence prononcée à l'hôpital de Valleyfield devant les médecins et les dentistes
par le DOCTEUR IRENEE FRAPPIER, D.D.S. de Valleyfield.*

PREVENIR la carie dentaire, ou une récurrence de la carie chez les patients qui ont déjà les dents obturées, voilà le principal souci de la profession dentaire. En général, nous traitons plus pour guérir que pour prévenir et je crois que cela est dû à bien des raisons, dont la principale serait celle-ci: Le patient ne fréquente pas assez souvent son dentiste, ou si vous voulez, il arrive trop tard, c'est-à-dire que le mal existe depuis trop longtemps pour être guéri.

Mais tout de même la profession dentaire a beaucoup travaillé depuis nombre d'années pour prévenir la carie des dents. Comme solution au problème, rien de bien précis pour au moins 50% des cas.

On a cherché longtemps le microbe destructeur; on ne pouvait non plus fabriquer de vaccins; on a essayé l'emploi des polyvalents, etc. Tout cela est resté sur la table. On s'en est pris alors à l'alimentation. Les vitamines et leur administration ont montré une amélioration dans 50% des cas, contre la carie dentaire. D'autre part, on a aussi remarqué que les vitamines ne donnaient aucun résultat dans le reste des cas. Quelle pouvait donc être l'action bienfaisante des vitamines dans les premiers 50%?

De ces recherches sur les vitamines, il ressortirait que le résultat le plus probable serait que les diètes aux vitamines (surtout C), que les diètes aux fruits et

aux légumes verts n'apporteraient rien de plus que l'alcalinité du sang et cela empêcherait les dents de se carier. On s'est alors demandé quelle pouvait bien être la cause des bienfaits de l'alcalinité. On s'est vite aperçu qu'avec un sang plus alcalin, la salive devenait aussi plus alcaline. Alors les dents, nos dents recouvertes d'émail, qui sont continuellement baignées par la salive, devaient nécessairement subir l'influence de l'acidité ou de l'alcalinité de la salive. Mais il reste à déterminer jusqu'à quel point d'intensité d'acidité l'émail peut résister.

Résumons ici l'hypothèse chimique. Pasteur avait eu l'intuition du rôle de l'acidité dans les phénomènes de la vie. Mais il était limité au tournesol pour ses dosages. En 1887, Arrhénius formule la théorie des ions. Alors le sens de l'acidité et de l'alcalinité se précise. Depuis ce temps, de nombreux savants ont découvert que, parmi les produits de dissociation des composés biochimiques, l'ion Hydrogène est le plus important. Et c'est surtout de cette découverte que découle la méthode de dosage qu'on appelle la concentration en ions H (hydrogène).

Voici la raison d'être de cette méthode. Jusqu'en 1914, on ne connaissait pas d'autre méthode de dosage que la volumétrie. On sait que les procédés volumétriques ne rendent pas compte de l'acidité vraie des solutions. S'ils nous font connaître la quantité totale d'acide ou la totalité des molécules acides présentes dans une solution donnée, ils ne nous révèlent rien de la force ou de la puissance de l'acidité. Par contre, nous pouvons, avec la concentration en ions H, doser parfaitement la force et la puissance des solutions acides ou alcalines données. Et pour prouver cela, versez de la soude normale en présence de phénolphthaléine dans différents acides également en solution normale. Qu'il s'agisse d'acide chlorhydrique, nitrique,

acétique ou amino-acétique, le nombre de c.c. de soude sera le même pour un égal volume de chacun de ces acides. Et cependant, une solution normale ou déci d'acide amino-acétique ne peut certainement pas être assimilée comme force à une solution normale ou déci n/10 d'acide sulfurique. Il est donc évident qu'il existe une différence entre l'acidité totale que démontre la volumétrie et l'acidité actuelle, telle que le démontre la théorie du pH.

Les méthodes volumétriques usuelles démontrent l'acidité totale, ou simplement la totalité des molécules acides, sans indiquer leur puissance d'acidité. Les résultats sont exprimés en grammes au litre. Tandis que la méthode du pH nous fait connaître l'acidité actuelle ou l'acidité potentielle ou encore puissance d'acidité, c-a-d la concentration en ions H d'une solution donnée.

Les expériences qui ont été faites par ce dernier procédé permettent de conclure: 1/ Que les virages des dosages volumétriques habituels seraient insuffisants à rendre compte de toute une zone d'acidité ou d'alcalinité, qu'ils laissent inexplorée. 2/ Que les résultats d'un dosage d'acidité dépendent de la technique employée et de l'indicateur colorant utilisé. 3/ Qu'un seul indicateur colorant ne permet pas de distinguer l'acidité plus ou moins forte des acides. 4/ Que bien souvent c'est là où la volumétrie a fait erreur, à cause de zones qui restent inexplorées et dans lesquelles se passent des réactions biochimiques, telles la préparation des bouillons en biologie. On comprend mieux alors le besoin d'une nouvelle méthode de précision.

Le principe de la méthode de concentration en ions H d'une solution repose sur trois faits: 1/ L'eau distillée chimiquement pure ne conduit pas l'électricité. 2/ Par addition d'une trace d'acide, de base ou de sel, on rend la solution conductrice. 3/ De plus par le passage du

courant, on constate que les acides sont décomposés en hydrogène et en un radical électro-négatif ($\text{HCl}=\text{H}+\text{Cl}-$). C'est sur ces trois faits qu'Arrhénius a édifié sa théorie des ions. C'est le phénomène de la dissociation. Avant ces vingt dernières années, de tous les ions dissociés en solution, on n'attachait pas d'importance à l'ion H qui, en réalité, est celui qui explique une foule de phénomènes, en plus d'être le seul à pouvoir donner l'acidité ou l'alcalinité actuelles des solutions.

Cette méthode de dosage par l'ion H, on l'appelle la concentration en ions H ou la méthode du pH. Si je prends la formule de l'eau pure, j'ai H_2O . H_2O se dissocie pour former deux radicaux: H positif et OH négatif. Au potentiomètre, je constate que l'hydrogène va au pôle négatif, car les contraires s'attirent et qu'au pôle positif, il me reste un radical négatif OH. Si l'eau est parfaitement pure, le courant ne passe plus: il s'est établi égalité de force entre les ions H positifs et les OH négatifs. Alors ce point négatif, par convention, est appelé pH 7. Plus haut que 7 annonce l'alcalinité, plus bas que 7 indique l'acidité.

Au dosage, la neutralité de l'eau pure est établie à CH 10-14. Comme cela était compliqué de dire:



on a décidé d'employer le logarithme de l'inverse. Or le logarithme d'un nombre est l'exposant qu'il faut donner à 10 pour reproduire ce nombre. Exemple: le logarithme de 10 est 1, celui de 100 est 2, celui de 1000 est 3, etc. D'autre part, le logarithme de 1/10 est 0-1, celui de 1/100 est 0-2, etc. Ainsi, au lieu de CH 10-7 pour l'ion H, on écrit pH 7.

La technique du pH peut se faire de deux manières: 1/ La méthode du potentiomètre: cette méthode est la plus précise. C'est un courant établi non par

fil, mais par des tubes à gaz et à produits chimiques qui ne changent pas la constance de la solution, comme le feraient des électrodes métalliques. 2/ La méthode des colorants, qui est basée sur la première méthode.

Nous savons que les colorants, par l'action plus ou moins concentrée des acides ou des bases, subissent des changements dans leurs couleurs. Nous savons aussi que pH 7 est le point neutre et que plus haut que 7, jusqu'à 12-13-14-15, c'est l'alcalinité de plus en plus grande et que, en bas de 7, c'est l'acidité qui augmente.

Il existe des colorants, ou si vous voulez, des solutions tampons colorées et chiffrées au dosage. Nous nous servirons de ces solutions pour comparer les couleurs que nous obtiendrons en dosant des échantillons de salive que nous avons récolté. Les colorants sont donc des réactifs, dont la substance subit un changement de couleur par la variation de concentration des ions de la solution.

Avant d'appliquer ces données à la salive, laissez-moi vous rappeler que la salive normale doit être neutre et même légèrement alcaline à toutes les heures du jour, donc pH 7 ou plus haut. D'autre part, on sait par les Rayons X que l'émail de la dent est dissoute à pH 6 ou plus bas. Pour prouver cela, on n'a qu'à prendre une tranche d'émail sain d'une dent et l'examiner aux Rayons X avant et après l'avoir laissé en contact avec une solution de salive à pH 6 ou moins. On constatera alors que l'émail se désagrège à pH 6 et plus bas que pH 6 il se désagrège encore plus vite. Nous savons d'autre part que l'émail sert à protéger la dent. Ces faits établis ont servi pour classer les gens à salive acide attaquant l'émail et ceux à salive non acide n'attaquant pas l'émail. La clinique et les Rayons X ont confirmé les expériences. Le docteur Hankee, en col-

laboration avec le Chicago Dental Research Club, a établi ces faits d'une manière pratique et facile à populariser. Nous nous sommes beaucoup servis de ses tableaux comparatifs de classement.

Voici maintenant le côté pratique de cette technique. Si l'on veut, par exemple, alcaliniser par la diète un patient dont la réaction est trop acide, il est assez curieux d'observer comment se comporte assez souvent les diètes alcalines qu'on lui prescrit. Souvent l'acidité augmente au lieu de diminuer. C'est ici que les dosages au pH peuvent énormément aider à choisir les diètes appropriées à chaque cas, grâce à un simple dosage de la salive. On peut alors répéter les dosages jusqu'à ce qu'on ait trouvé la ou les diètes capables de redonner à un patient acide une alcalinité normale.

Avant de commencer les expériences très simples que nous ferons tout-à-l'heure, rappelons encore que la salive de la journée est plus alcaline que celle de la nuit ou du matin avant le petit déjeuner. La prise d'échantillons se fera donc le matin, à jeun, pas plus tard que huit heures, de préférence. Il ne faut pas que le sujet rince sa bouche, avant la prise de salive. On récoltera environ 25 c.c. de salive; mâcher une gomme neutre aidera le patient à avoir une abondance de salive. Après déjeuner, on récolte encore 25 c.c. de salive, ce deuxième prélèvement pour servir de point de comparaison. On a donc deux échantillons, celui d'avant et celui d'après déjeuner. Il existe des antiseptiques neutres, tel le parachlorméthaxylénol, qui conserveront la salive en attendant l'analyse. Il faudra tout de même mettre les échantillons au réfrigérateur, car les corps biochimiques ne se conservent pas.

Voici comment on travaille à la recherche du pH. On fait trois dosages sur chaque échantillon: 1/ d'abord le pH initial, que l'on obtiendra en colorant une goutte de salive et en la com-

parant aux solutions tampons. 2/ Ensuite on recherche le pH de la salive acidulée par 1 c.c. de HCL n/10, (à 10 c.c. de salive on ajoute 1 c.c. de HCL n/10), et on colore une goutte de salive, comme dans l'expérience précédente. 3/ A la balance de cette solution acidulée on ajoute autant de HCL n/10 qu'il faut pour abaisser le pH à 4.5. Nous répétons les mêmes expériences sur la salive d'après déjeuner. Après chaque dosage, on enregistre les résultats.

Et c'est ainsi que, d'après les expériences faites par le Chicago Dental Research Club, que les patients peuvent être classés suivant l'acidité. L'examen du pH s'accompagne naturellement de l'examen clinique et radiographique. Les résultats obtenus sont des plus surprenants et renversants.

Afin de démontrer l'origine de la carie d'après ces expériences, on a classé les patients comme ceci: 1/ Les immunisés; 2/ Les non-susceptibles; 3/ Les susceptibles.

Par 1/ les immunisés, on entend ceux qui ont un pH d'avant déjeuner plus élevé que 7. Ceci voudrait dire que leur salive est neutre toute la nuit et plutôt alcaline à toutes les heures du jour. De plus, le pH additionné de 1 c.c. de HCL n/10 ne descend pas plus bas que 6 et reste même souvent à 6.7. Ce test remplace ce que la salive fait pendant 4 heures d'incubation. Enfin, chez les immunisés, il faut beaucoup de HCL n/10 pour abaisser le pH de la salive à 4.5. A l'examen clinique et radiographique, on n'a trouvé aucune carie ni indice de carie (décoloration) chez ces immunisés.

2/ Les non-susceptibles ressemblent aux immunisés, mais avec des pH plus bas. En plus, tous ces patients ont des obturations dans la bouche. Mais depuis deux ans, ils n'ont développé aucune carie et, grâce à une extrême propreté, leurs dents ne se carient plus. On a

aussi remarqué chez ces patients qu'une cause mécanique semblait entraver la carie. En effet, les espaces inter-dentaires et les cuspides étaient obturés.

3/ Les susceptibles: les susceptibles à la carie ont un pH acide, avant déjeuner: il est de 6.6. Ils ont peu d'habileté à neutraliser le premier c.c. de HCL n/10; aussitôt le pH descend à une moyenne de 5.7 et varie avec une minima de 5.6 et une maxima de 4.4. Il faut beaucoup moins d'acide HCL n/10 que dans les deux premiers cas pour abaisser le pH à 4.5. Un patient qui a développé des caries en-dedans d'un an est considéré comme susceptible.

Comme on peut le constater par les expériences et les tableaux du Chicago Dental Research Club, il existe des relations plus grandes qu'on ne l'avait cru jusqu'ici entre la carie dentaire et le milieu salivaire. Le rôle des bactéries n'a peut-être pas l'importance qu'on lui a toujours donné dans l'étiologie de la carie dentaire. Il est vrai que les bactéries sécrètent des acides, mais par les dosages au pH, on a trouvé que leurs acides étaient plutôt de force et de quantité insignifiantes, si l'on considère que dans un milieu salivaire alcalin normal, les bactéries ont beaucoup de difficulté à traverser l'émail. Et on en peut trouver une preuve dans la forme des caries initiales, à l'examen clinique.

Il ressort de ceci que l'action des bactéries serait neutralisée par une salive normale. La bouche sera toujours remplie de microbes; il y aura toujours de la dextrose dans la bouche et des microbes pour la transformer en un acide plus nombreux et plus puissant que celui développé par les microbes. Mais comme il faut aux microbes un milieu de culture pour se développer et si ce milieu, qui est la salive, leur est impropre, ils ne pourront jamais perforer l'émail avec leur acide et se mettre à l'abri pour détruire l'intérieur de la dent. De plus,

on a constaté dans les examens de salive que les échantillons d'avant déjeuner étaient énormément microbiens, en comparaison de ceux de la journée. Ce qui prouverait de nouveau que le carie dentaire se fait la nuit.

Au point de vue pratique, il ressort qu'un patient devrait savoir si sa salive est normale. Sinon une diète appropriée contrôlée par des dosages répétés au pH pourra rendre son milieu salivaire en état d'alcalinité et ainsi l'immuniser contre la carie dentaire. La chose serait facile à faire avec la collaboration du médecin traitant.

Actuellement, la plupart des meilleurs rince-bouche connus sont des antiseptiques alcalins ayant des pH dépassant 10 et très bien tamponnés, c'est-à-dire difficilement abaissables à 4.5. Ces antiseptiques sont donc excellents en soi. Mais leur emploi répété peut souvent engendrer des troubles plus graves que ceux qu'on cherche à prévenir en en faisant usage. Si à la place des antiseptiques tels que formulés actuellement, nous avions des solutions tampons, à formule bien définie et pesées à la balance de précision, contenant juste une trace de phénol ou de tout autre antiseptique neutre pour en assurer la conservation, il semble que ces solutions rendraient un service plus sûr et plus exact que ne le font les antiseptiques actuellement en usage. Les patients pourraient sans danger user et abuser d'un rince-bouche ainsi constitué.

La deuxième conclusion pratique serait celle-ci: les dents propres faciliteront l'action bienfaisante d'une salive normale. Si les dents sont recouvertes de plaques gélatineuses, la salive ne peut les atteindre, cependant que la faible quantité d'acidité des microbes sous ces plaques finira par attaquer l'émail de la dent. Et cela, le docteur Jones l'a observé dans le cas d'un immunisé de salive, dont les

dents avaient carié à cause d'un manque d'entretien.

Il est donc évident qu'il faut continuer à nettoyer ses dents et avec la technique moderne de la brosse à dents. Cette technique à laquelle les vieux habitués de la brosse à dents ont peine à se soumettre, devrait être enseignée et pratiquée dès le bas âge. Les dentistes devraient pratiquer et faire pratiquer cette technique par les élèves des écoles où ils pourraient facilement avoir accès et ainsi fixer dans l'esprit des éducateurs

et des jeunes enfants l'importance de l'hygiène dentaire. Et ainsi, par la force naturelle des choses, tout le monde pourrait être éduqué à comprendre la valeur qu'on doit attacher à l'entretien de ses dents.

En terminant, nous n'ajouterons qu'un mot: c'est que la pratique des dosages au pH nous fait entrevoir un domaine immense avec des possibilités attrayantes de découvertes nouvelles tant au point de vue dentaire qu'au point de vue médical. Avis aux chercheurs.

Le Dentiste et sa Responsabilité Professionnelle

Conférence du 4ème Congrès des Dentistes de langue française de l'Amérique du Nord en Congrès à Montréal, le 3 juin 1938

par F. PHILIPPE BRAIS, C.R.

(suite)

Ces causes que nous venons de poser sont les plus intéressantes de celles qui se sont rendues à jugement et qui sont rapportées. Il y en a une infinité d'autres, qui dans certains cas ont été retirées et en d'autres ont été réglées. C'est peut-être dans ces cas qui ne se rendent pas à jugement que les dentistes trouvent l'exemple le plus utile et la matière la plus au point pour cette causerie.

Un dentiste dans un district rural est poursuivi pour avoir infecté la bouche de sa patiente. En soi, il n'y avait rien qui pouvait faire craindre. Le dentiste nous jurait que ses instruments étaient toujours convenablement et complètement stérilisés et qu'il avait pris tous les soins voulus avant et après l'opération. Nous nous préparions à défendre ce brave Monsieur lorsque l'idée nous vint de faire une petite enquête sur ses antécédents. Chose presque incroyable, il avait pratiqué dans

quatre districts de la province et chaque fois il avait abandonné son poste après avoir perdu sa clientèle comme résultat de 1 ou 2 accidents retentissants, d'ûs, généralement, à une infection. Inutile de dire que la cause fut réglée, que ce dentiste ne bénéficiera plus d'une police d'assurance. Il est possible qu'il suive les conseils que nous lui avons donnés de s'occuper plutôt de pêche que de dentisterie.

Dans un autre cas, un dentiste d'excellente réputation, pratiquant dans une ville industrielle, avait fracturé la base du sinus et y avait perdu un fragment de dent. Ce médecin, je le répète, était bon praticien, et absolument consciencieux. Il nous jurait qu'il avait examiné la cavité après l'extraction, l'avait sondée, avait constaté que l'alvéole était en bonne condition, qu'il n'y avait aucun corps étranger, et en outre, qu'il se serait aperçu si la dent n'était pas sortie intacte. Mal-

heureusement, toutefois, la radiographie démontrait bien la fracture et un chicot de dent dans le sinus. Ceci fut découvert, bien entendu, longtemps après, et à la suite d'une infection généralisée, qui amena le patient à l'hôpital, où le chicot fut enlevé. C'était bien, en effet, une racine de dent. Il a fallu régler.

Il y avait ici erreur ou négligence de la part du dentiste. Un examen complet aurait révélé la condition de la bouche du patient.

Les cas les plus graves, les plus difficiles et même les plus tristes, sont les ostéomyélites de la mâchoire.

C'est le Docteur Maurice Roy, professeur à l'école dentaire de Paris, qui a dit que, si l'ostéomyélite de la mâchoire est pour le malade une des complications les plus graves des infections dentaires, elle constitue pour le dentiste une des éventualités les plus sérieuses au point de vue de ses conséquences judiciaires possibles. En effet, le début de cette redoutable complication, qui peut entraîner la perte non seulement d'un grand nombre de dents, mais aussi d'une portion considérable, voir même la totalité de la mâchoire, est l'on ne peut plus banale.

"Une dent, dit-il, atteinte d'infection pulpaire présente des phénomènes d'arthrite aiguë absolument analogues à ceux qui accompagnent l'évolution d'un abcès alvéolaire aigu et c'est seulement au bout d'une période assez longue que, la collection purulente tardant à se former, l'inflammation s'étendant à une portion plus ou moins considérable de l'os avec persistance des douleurs, le dentiste, comme le chirurgien, peuvent avoir les premiers éléments de diagnostic possible entre l'abcès alvéolaire banal et une ostéomyélite de la mâchoire.

Le malade, souffrant de la dent causale, va trouver un dentiste lui demandant de lui extraire celle-ci.

En tout état de cause, et bien plus encore s'il pouvait penser à la possibilité d'une ostéomyélite, le devoir du dentiste, constatant la présence d'une dent ou racine infectée déterminant des accidents inflammatoires aigus, est d'enlever immédiatement la dent causale et c'est ce qu'il fait généralement.

Mais, alors que, s'il s'agit d'un abcès alvéolaire, les phénomènes inflammatoires et la douleur qu'ils occasionnent vont très rapidement disparaître à la suite de l'intervention, il n'en est plus de même s'il s'agit d'une ostéomyélite, (et je répète, que, *à la période de début, il est absolument impossible à quiconque de faire le diagnostic différentiel entre un abcès alvéolaire en formation et une ostéomyélite de la mâchoire en évolution*).

Les phénomènes inflammatoires donc, *malgré l'extraction et non à cause d'elle*, continuent leur évolution, gagnent une portion plus ou moins considérable de la mâchoire, généralement en avant et en arrière de la dent causale;— — —"

Le docteur Roy nous décrit une opération qu'il a dû pratiquer à la suite d'une action intentée par le malade contre un confrère qui était accusé d'avoir provoqué l'infection. Il ajoute:

"La raison pour laquelle ces accidents continuent leur évolution *après et non à cause* de l'extraction, c'est que, on le sait, le processus de l'abcès alvéolaire et celui de l'ostéomyélite sont absolument différents."

Il explique que dans le début d'un cas d'ostéomyélite on peut peut-être sauver la mâchoire en faisant l'extraction de la dent et si les choses ne sont pas trop avancées, cette intervention peut quelquefois sauver le malade. Mais, ce qui arrive trop souvent, c'est que le

patient voit, dans l'extraction, le début de l'infection, rattachant la douleur dont il souffrait antérieurement exclusivement à un mal de dent ordinaire. L'opération de l'extraction apparaîtrait pour le malade comme le 'primum movens' de tous les phénomènes qui vont se succéder. Ainsi on peut suivre les paroles du docteur Roy dans sa causerie intéressante:

"Leur évolution, pour l'esprit simpliste de ce malade ou de son entourage (quelquefois plus dangereux encore), l'amène au raisonnement suivant: 'J'avais une dent qui me faisait mal, je me la fais enlever et, loin de me guérir, cette intervention m'a déterminé des accidents formidables, comme on n'en a jamais vus; c'est évidemment le dentiste qui, en m'enlevant ma dent, s'est servi d'un instrument sale et m'a causé cette infection épouvant-

able!' et, de ces déductions au palais de justice, il n'y a qu'un pas, si je puis dire."

Il explique ensuite que, dans un cas particulier où, d'après lui, comme expert, il était clair que le chirurgien-dentiste avait pratiqué très correctement une extraction très difficile, le tribunal l'a condamné comme ayant déterminé des accidents pour lesquels il n'avait absolument aucune responsabilité. L'argument du malade était: 'J'étais bien, maintenant je suis frappé d'une incapacité horrible' et la Cour a abondé dans le même sens: 'l'homme était bien, il a perdu une partie de la mâchoire par infection, c'est donc le médecin qui a dû l'infecter'.

Inutile de dire qu'un dentiste, frappé d'un jugement dans un cas aussi grave que celui-ci, en serait probablement quitte pour abandonner sa clientèle.

Nouvelles

Convalescence

Les confrères apprendront avec plaisir que le Docteur Nolin entré il y a quelques temps à l'hôpital pour y subir une opération en est sorti quelques jours après, opéré et en excellente voie de guérison. Nous espérons qu'une si belle vitalité nous le conservera longtemps encore.

Belle Initiative

La tâche du chirurgien-dentiste est extrêmement fatigante. Tension nerveuse continuelle, debout toute la journée, position tout à fait instable; il n'est pas possible pas plus que logique qu'un homme travaille six jours par semaine de huit heures ou neuf heures du matin à dix ou onze heures p.m. Le travail du dentiste qui prend un repos légitime est toujours plus efficace et souvent plus appréciable. Malheureusement il y a toujours la menace d'un voisin à qui une ambition assez peu reluisante commande de tenir sa clinique ouverte pour s'emparer des clients du confrère au repos.

Les dentistes de Saint-Hyacinthe ont compris cette vérité. A la suite d'une entente à laquelle tous ont adhéré, ils fermeront leurs portes tous les mardis, jeudis, et samedis soirs à partir de six heures p.m., *sauf naturellement pour les cas d'urgence*. Et nous les savons tous assez larges d'esprit et dignes de foi pour croire qu'aucun d'eux ne prendra prétexte de cette restriction imposée par l'honneur professionnel et la charité chrétienne pour manquer à ses engagements.

Messieurs de Saint-Hyacinthe, vous méritez des félicitations et il n'est pas probable qu'un tel exemple ne soit pas suivi.

Banquet Traditionnel

La Faculté Dentaire bon an mal an n'a jamais laissé perdre l'heureuse tradition d'une petite fête aux huîtres chaque automne. Vendredi le 4 dernier, professeurs et élèves se réunissaient donc dans une même salle de la Faculté pour assister au banquet traditionnel. Rien de plus modeste à la vérité que cet annuel festin, mais la charmante intimité qui y règne en fait une soirée des plus agréables. Ceux qui étaient présents eurent le plaisir de voir le Docteur Nolin assez rétabli pour venir partager avec eux une gaîté dont il fut toujours le grand semeur.

Nouvelle Société Dentaire

La ville de Saint-Hyacinthe a vu naître au cours de l'été dernier une nouvelle société dentaire. Elle a tenu sa première session régulière mercredi le 12 octobre dernier dans les salons du Club Maskoutain, dont le Docteur Ernest Daigle, membre de la nouvelle société, est le président.

Le Docteur A. Bédard a été élu président; le Docteur Hyacinthe Breton, trésorier; le Docteur Yves Lafleur secrétaire.

Après les élections des officiers et l'adoption d'une constitution pour la Société les confrères ont étudié plusieurs questions en rapport avec la régie interne de leur profession.

Les membres de cette Société sont animés des meilleures intentions au point de vue de l'avancement scientifique de leur groupe. Dans le but de mieux servir le public et de le mieux renseigner les dentistes de Saint-Hyacinthe ont décidé d'accorder une attention spéciale à l'examen et à la mise en pratique d'un projet de propagande intense en faveur de l'hygiène dentaire dans leur ville.

Nous sommes heureux de cette nouvelle initiative. Connaissant bien les personnalités qui composent cette Société, nous sommes assurés de son efficacité. Nous souhaitons donc à la Société dentaire de Saint-Hyacinthe plein succès et longue vie.

La rédaction.

Nos Felicitations

Au Docteur et à Madame Laurent Deslauriers, de Saint-Hyacinthe, puisque au début d'octobre la cigogne a daigné leur porter un beau gros garçon.

Au Docteur Armand Fortier qui n'a pas craint de s'exposer au même sort en prenant compagnie pour la vie.

Au Docteur James L. Charpentier qui après mûre réflexion a cru pouvoir risquer d'en faire autant. Aux nouveaux époux nous souhaitons bonheur et postérité.

A la dernière minute nous apprenons que c'est une épidémie qui s'est abattue sur nos confrères. On dit que les Docteurs Renaud, Gagnier, Poupart atteints dès le début ont déjà succombé.

Aux familles éprouvées nous offrons une part des sympathies plus haut mentionnées.

In Memoriam

Au cours du mois dernier est décédé notre confrère le docteur Gaston Paiement. A la famille éprouvée nous offrons nos plus sincères sympathies.

OFFICERS OF THE CANADIAN DENTAL ASSOCIATION FOR 1938-1939

PRESIDENT

Stephen A. Moore.....London, Ontario

PRESIDENT-ELECT

W. W. Woodbury.....Halifax, N.S.

SECRETARY-TREASURER

J. Stanley Bagnall.....Halifax, N.S.

EXECUTIVE COMMITTEE

Stephen A. Moore (Chairman).....London, Ontario
G. L. Cameron.....Swift Current, Saskatchewan
Edward T. Bourke.....Montreal, Quebec
W. H. Woodrow.....Brockville, Ontario
R. L. Pallen.....Vancouver, B.C.
A. W. Faulkner.....Halifax, N.S.

BOARD OF DELEGATES

Stephen A. Moore (Chairman).....London, Ontario
R. L. Pallen.....Vancouver, B.C.
C. M. Fletcher.....Lethbridge, Alberta
G. L. Cameron.....Swift Current, Saskatchewan
M. H. Garvin.....Winnipeg, Manitoba
W. H. Woodrow.....Brockville, Ontario
G. L. Prestien.....Galt, Ontario
Edward T. Bourke.....Montreal, Quebec
Ernest Charron.....Montreal, Quebec
Howard MacDonald.....Saint John, N.B.
A. W. Faulkner.....Halifax, N.S.
J. A. McMurdo.....Summerside, P.E.I.

CHAIRMEN OF COMMITTEES

Dental Legislation.....J. Stanley Bagnall, Halifax, N.S.
Dental Health.....Harry S. Thomson, Toronto, Ontario
Dental Education.....A. D. A. Mason, Toronto, Ontario
Public Relations.....J. S. Lapp, Toronto, Ontario
Finance Committee.....Edward T. Bourke, Montreal, Quebec
Canadian Army Dental Corps.....Ira Hamilton, Ottawa, Ontario
Journal.....G. Vernon Fisk
Research.....Andrew J. McDonagh, Toronto, Ont.
Benevolence.....To be appointed
Ethics.....G. L. Prestien, Galt, Ontario
Indian Affairs.....Howard MacDonald, Saint John, N.B.
Constitution and By-Laws.....Robert Leslie Pallen, Vancouver, B.C.
Nomenclature.....Gerald Franklin, Montreal, Quebec
Insurance.....A. E. Higgins, Toronto, Ontario
Necrology.....C. M. Fletcher, Lethbridge, Alberta
Archives.....J. Stanley Bagnall, Halifax, N.S.



The Falls of the Jordan where Palestine gets its power.
The power works have been damaged by vandals in the recent outbreaks in the Holy Land.—
By courtesy of Evangelical Publishers.



J. F. EDGECOMBE, D.D.S.

Saint John, New Brunswick.

Associate Editor of the Journal of the Canadian Dental Association.

Past-President, New Brunswick Dental Society.

Past-President, Saint John Dental Society.

Representative from N. B. on Canadian Dental Hygiene Council.

Gunner, France, 43rd Field Battery, Sept. 1917—April 1919.

Major, O.C., 15th Heavy Coast Defence Battery.

The Modern Program for Prevention of Dental Disease*

by JOHN OPIE McCALL, D.D.S., F.A.A.P., F.A.C.D.

Director, The Murry and Leonie Guggenheim Dental Clinic, New York, N.Y.

PREVENTIVE dentistry is a very broad topic, even with such qualifications as may be made to keep its discussion within the reasonable bounds of an evening program. Tonight I wish to stress, particularly, dental caries in the deciduous dentition, its influence on occlusion and on periodontal disease. I also wish to discuss some phases of periodontal disease which are not directly related to disturbed occlusal relations.

It is only in recent years that our attention has been turned to the deciduous teeth in our studies of dental caries and its prevention. First there was the feeling that the two dentitions were quite separate and distinct entities and that caries could be prevented in the permanent teeth regardless of whether the deciduous teeth had been cared for or not. This attitude is exemplified in the program of the not-so-distant past which made the first permanent molar the point of prime interest and effort. Recent studies and careful clinical observation have shown the error of this viewpoint, and we are now much alive to the significance of the deciduous teeth in the preventive program.

There has been much research carried on, through the years, in the field of caries. I shall not attempt to review this, but

rather to point out to you what I consider the most fruitful of these studies as to practical application today. My opinions are naturally influenced by my clinical observations at the Guggenheim Dental Clinic over the past few years.

It is always logical to begin at the beginning, never more so than in the matter of the prevention of dental caries. This takes us back to the prenatal period, when the crowns of the deciduous teeth are being calcified. There is very good evidence to the effect that dietary deficiencies of the mother, severe disturbances of her health, or presence of focal infection, through their influence on calcium metabolism, may result in hypoplasia of the enamel of the deciduous teeth. This is a condition which strongly predisposes these teeth to decay, and which, in the case of the molars, may result in early loss of occlusal height with later periodontal disturbance as a result.

During the period of infancy the crowns of the permanent incisors are being calcified and this means that dietary faults may affect their enamel as well as favour decay of the deciduous teeth.

You will gather from what I have said, that much damage can be done to the teeth during the prenatal period and the period of infancy, and that the dentist.

*Read before the Academy of Dentistry, Toronto, March, 1938.

who is desirous of doing a well-rounded job in the field of prevention, must interest himself in the events of these periods quite as much as in those things that happen after the teeth begin to erupt.

Diet supervision, beginning at birth, is as important in the preventive dentistry program as it is for the promotion of the baby's growth and general health. Diets which may be satisfactory from the growth standpoint are not always dentally satisfactory, and it is interesting and significant to see evidence that pediatricians are aware of this fact and are anxious to see that the babies under their care have good teeth.

Increasing knowledge, both of the role of vitamins and of the requirements for satisfactory mineral metabolism, is making it possible to lay down some broad requirements of diets that will be likely to produce good teeth and to give them protection. We can draw on the work of Boyd and Drain, Martha Jones, Lady Mellanby, Bunting, and others, and can harmonize their theories with the production of a very satisfactory dietary regime.

This sums up in the form of a diet high in calcium and phosphorus, and vitamins A, D, and C, having a preponderance of alkaline ash foods, and with a minimum of sugar and cereal grains. (Potatoes provide an excellent alkaline ash substitute for the acid ash cereal grains.) The chief difference between the diet that I feel is desirable and some that have been advocated in the past is in the alkali-base ratio. On this point I lean to the ideas of Martha Jones. A diet commonly recommended at the Guggenheim Clinic has an alkaline excess of 50 ml. of N. base and up. This recommendation is well supported by the studies made by Krasnow on saliva of

immunes and susceptibles and correlations of this with diet and dental conditions in these cases.*

One feature of the diets recommended at the Clinic is their economy. This is particularly important for the families whose children we serve. A 2000 calorie diet, adequate in all respects, including cod liver oil, costs, at present, 27 cents per day in New York.

CARIES IN HYPOPLASTIC ENAMEL

We now come to a consideration of the most important dental lesion of the period of infancy, dental caries originating in hypoplastic enamel areas. As already suggested, dietary deficiencies in pregnancy are apt to interfere with normal functioning of the enamel organ and thus to result in enamel hypoplasia of varying degrees of severity. In severe cases the enamel crumbles readily or may be actually soft enough to be scraped off. Whether severe or not, enamel hypoplasia predisposes to decay. This may or may not take place, depending on diet and health conditions of the infant.

When such decay does occur, it may readily cause damage that will necessitate early extraction of the affected teeth with effects that may have repercussions throughout the life of the individual. It is interesting to note that decay in these cases tends to occur on surfaces which are not subject to decay ordinarily, in older patients, i.e.—labial surfaces of the incisors. Also, if the molars are involved, it attacks large areas of the occlusal surfaces and not pits and fissures only.

During infancy, as also later in life, we may find evidence of mild or sub-clinical scurvy. Periodic inspection of the well baby, to say nothing of the sick one, should include mouth inspection to see that the tissues generally, and the dental ridge tissues particularly, are

*This is reported in a paper entitled NUTRITIONAL INFLUENCE ON TEETH appearing in the March, 1938, issue of the *Journal of the Canadian Dental Association*.

healthy. Shortage of vitamin C is apt to be indicated by redness of the ridge. This also is evidenced by a true gingivitis at the time of tooth eruption if vitamin C intake is low.

When the incisors have erupted fully their enamel should be inspected for structural faults. If there is roughness of the labial enamel, it should be treated with ammoniacal silver nitrate, reduced with eugenol. Accumulation of stain near the gum line is usually an indication of slight enamel roughness, really a form of enamel hypoplasia, and may require the silver nitrate treatment also. When the deciduous molars are well erupted, the use of the tooth brush begins. A small brush, with moderately stiff bristles, can be used, dipped in a weak solution of salt and soda, equal parts.

While I do not intend to suggest that under any circumstances is it safe to relax our dietary rules for the infant and pre-school child, I do want to make it clear that especial attention must be paid to the diet if there is any evidence of hypoplasia of the deciduous teeth. Under such circumstances, every care must be taken to insure maximum content of protective elements. The sugar content must also be kept at a minimum, except for a reasonable amount of the natural sugars, such as molasses, maple sugar, or honey. If the enamel of the deciduous teeth is found to be free from evident hypoplasia, our principal concern from the standpoint of prevention is the care of the pits that may occur in the occlusal surfaces of the deciduous molars. These pits do not show the vulnerability that is characteristic of similar pits in the permanent molars. Nevertheless they must be carefully inspected at regular intervals, and at the slightest evidence of penetration of caries, they should be opened up and filled.

At about four years of age we begin to find caries starting on approximal

surfaces of the deciduous molars, even in mouths that seem to be otherwise resistant to decay. Approximal caries on the incisors is, of course, not uncommon, but it is readily detected, whereas in the molars it can only be detected in its early stages by use of the bite-wing x-ray film. Deciduous molar approximal caries is potentially the most serious lesion that attacks well-formed teeth. This is because it is difficult to detect in its incipency, because it rapidly penetrates to the very large pulps that are characteristic of these teeth, and because cavity preparation is hazardous due to the large size of the pulps and the consequent difficulty of avoiding pulp exposure during cavity preparation.

X-RAY

I have mentioned the x-ray in connection with approximal caries. If it had no other use than this it would still be indispensable to the proper care of the deciduous, as well as the permanent teeth. At the Guggenheim Clinic we take bite-wings and an upper anterior film for each child who is admitted, plus any additional incidental films which may be indicated in unusual situations. Bite-wings are also taken for each recalled patient. Since recalls are sent out in from six to ten months after each completion, this means a fairly closely related series of x-rays that provide valuable evidence of growth, as well as other incidents of a changing dentition. With the small children we use a small size bite-wing film and a larger size for the older ones.

I wish, especially, to emphasize the value of the bite-wing x-ray for determining depth of approximal decay as well as its incidence, and thus giving warning of possible pulp exposure. Used for this purpose, it can be made to save much exploratory operative work. Time will not permit further elaboration on this theme. Suffice it to say that a short

experience in the universal use of x-rays in children's mouths will convince any dentist that he cannot properly care for children's teeth without the use of this adjunct.

PROPHYLACTIC ODONTOTOMY

It seems unnecessary today to urge prophylactic odontotomy as an important measure in preventive dentistry. Theory and practice are sometimes two different things, however. You may be interested to know that, at the Guggenheim Clinic, experience strongly supports this theory. It is a rare thing to find a first or second permanent molar free from caries more than two years after eruption, the only exceptions being teeth with low cusps, correspondingly shallow sulci, and evidence of apparent coalescence of enamel lobes. It is possible therefore to select the teeth that are to be opened up on the basis of tooth form and with little reference to the possibility of an explorer sticking in a fissure.

Furthermore we find it very unsafe to temporize with a molar that does have a "sticking" point. These teeth often develop deep caries, even with pulp involvement, before they are fully erupted. In such cases we commonly excise gum tissue that may partially cover the occlusal surface in order to permit immediate cutting into the fissure with proper extension for the placing of a filling.

IMPORTANT FACTORS IN PREVENTION

I have just realized that in carrying along this story by describing the sequence of lesions against which we must guard, I have omitted mention of some of the important factors in the prevention dental program. One of these is the prophylactic treatment, one is the correct and regular use of the tooth brush, and, last but not least, vigorous use of the teeth in the mastication of food which requires vigorous mastication.

These measures do not require detailed consideration here. I am sure you are all familiar with the philosophy underlying these hygienic practices, and I want to assure you that I am convinced of their value. At the Guggenheim Dental Clinic we have a Tooth Brush Drill room, in which the children learn to brush their teeth properly. Every child must have a series of lessons there, in which he brushes his teeth under the instruction of the dental hygienist.

It might be well to mention, too, that in giving a prophylactic treatment, the enamel must not only be freed of deposits and stain, but must have a high gloss imparted to it, if it is not naturally glossy. We find a great deal of enamel, especially on the labial surfaces of the anterior teeth and the buccal and lingual surfaces of the molars that, while not grossly hypoplastic, is still slightly rough or dull in finish. The use of the Burlew disc with pumice will usually reduce the roughness and it can be highly polished with tin oxide and rubber cup.

OCCCLUSION

Now a few words regarding occlusion. The forces governing the arrangement of the teeth in the jaw are still a deep mystery despite the earnest study which has been devoted to this problem. Consequently I have no formula for the prevention of malocclusion. I can only say that the best chance of bringing along the teeth of our young patients into a co-ordinated and pleasing occlusal relationship is first, through protection of the teeth against caries, so that the deciduous teeth shall not be lost prematurely and the permanent teeth not lost at all; second, through encouraging vigorous jaw function (in mastication), third, through eating foods which contain bone-building materials.

We see some strange things occasionally, such as beautifully formed, immune

teeth in a crowded narrow arch; carious neglected deciduous teeth in arches that are well formed and that suffer no loss of dimension even if the carious teeth are prematurely extracted. These things are exceptions, but they do occur and their occurrence helps us to avoid thinking that we know it all.

On the consequences of malocclusion, when it does occur, I shall have more to say under the heading of periodontal disease, for one of the most serious consequences of malocclusion is derangement of the periodontal tissues with ultimate—and sometimes early—periodontal damage.

PERIODONTAL DISEASE

Periodontal disease is often thought of as an infection of the supporting tissues of the teeth. But while it is true that infection is a complicating and important part of the picture, we should approach our study of the disease, particularly from the preventive standpoint, by a consideration of the aetiological factors which break down the resistance of the tissues to pathogenic bacteria. Resistance may be broken down, briefly,—by systemic fault, by subnormal function, by irritants acting on the marginal gingiva, and, finally, by traumatic occlusion.

First, let us take the question of systemic faults, consider what may be included under that heading and describe the signs, indicating that these factors are active in the case. Systemic disturbances may be due either to conditions directly brought about by diet deficiency or disbalance, or to disease conditions not directly related to diet. Under the latter we have such conditions as agranulocytosis; under the former, scurvy and other less definite dietary dyscrasias. The characteristic that all of these conditions have in common is the widespread distribution of the lesions and the tendency of the visible lesions to involve tissue well beyond the area of the marginal gingiva.

Inspection of the mouth shows a generalized gingivitis of a severity not readily accounted for by the local irritants which may be present.

Subnormal function includes lack of *vigorous* masticatory habit and complete absence of function. The latter can usually be detected readily by studying the relations of mandibular to maxillary teeth; a typical example is the so-called "open-bite" case. In the former, it is not so easy to decide when masticatory habit drops below the level required for keeping up normal resistance. Generalized but mild inflammation of the gum tissue and the coating of the tooth surfaces with a gummy layer of mucin should arouse the suspicions of the dentist, however.

Local irritation to the marginal gingiva is usually readily identified. In this category we have the classical aetiological factors of deposits of calculus, overhanging filling and crown margins, food impactions, etc. These irritants have the virtue of being readily discoverable, partly because the injuries they produce are so definitely localized. These areas tend to contrast rather sharply in tone with the relatively healthy areas that are not being subjected to such irritation.

Excessive functional stress, also known as traumatic occlusion, is, strangely enough, the least tangible of the factors that cause disease of the periodontium, yet it is a purely local agency. It is often impossible to say that it is present except by analyzing the lesions that it produces. These lesions vary in their nature at different stages of the disease and they vary according to the background of the systemic condition of the patient and other interacting local factors. Then again, in some cases, traumatic occlusion may not produce periodontal disease at all, in the ordinary acceptance of the term. In other cases it may produce pulp disease.

In children especially, traumatic occlusion often causes pulpitis. Particularly is this apt to be true of teeth that have had pulpotomy operations performed. Here we have, of course, an operation in which the coronal portion of the pulp tissue is removed, with the radicular portion left intact. While we might expect painful reactions to this operation in the pulp, the facts are, that if the case is properly selected and properly managed there will be no subsequent pain. When these cases do flare up, traumatic occlusion is to be suspected at once.

Through many years past the dental profession has regarded periodontal disease as a disease of adult life. It has therefore seemed logical to consider its prevention as something not requiring attention until the patient had reached the age of thirty-five or forty. Possibly the most important message I can bring to you is to state that the foundation of more than ninety per cent of the cases of periodontoclasia is laid in childhood. The opportunity afforded me in the past six years as director of The Murry and Leonie Guggenheim Dental Clinic in New York, to study the mouths of a large number of children, has made it possible to develop some rather definite convictions on this point.

CASE HISTORIES

Let us see how the elements of unbalanced occlusal stress, insufficient function, inferior alveolar structure and systemic shortcomings are brought into the picture through disturbances occurring in the mouth of the child. To visualize this most clearly for you I will describe some typical cases as seen at the Guggenheim Clinic. Let me say first, however, that due to low economic status and also neglect in the section of New York City served by the Clinic, the children treated there present a very high incidence of dental disease. What is typical in the

children served by the Clinic may not be entirely typical of children in other cities. I believe however, that the differences are those of degree and not of kind. But, to revert to our cases;—

John B. was brought to the Clinic at two years of age, apparently healthy but showing enamel hypoplasia of all the teeth. In addition to the hypoplasia, the upper central incisors were badly decayed and abscessed; they had to be extracted.

Mary L. was brought to the Clinic at the age of five with all deciduous molars so badly decayed as to be unsavable. There was gingivitis. The molars were extracted, leaving her only the anterior teeth on which to do her chewing.

Richard M. was seven years old when admitted. He had numerous cavities that caused pain when he tried to chew, consequently he didn't try. His teeth were coated with a gummy slime and his gums were markedly inflamed.

Anna M. was seven years of age when we first saw her. She had lost several of her deciduous molars and the first permanent molars were already perceptibly decayed. One of these proved to be unsavable and had to be extracted. There was considerable gingivitis.

Let us see what these and similar conditions mean in relation to later periodontal disease. In the first case we found hypoplastic enamel of the deciduous teeth, a condition now attributed fundamentally to faulty prenatal nutrition. Decay, which may be very destructive, nearly always occurs in the areas of hypoplasia; this is more or less under the control of postnatal nutrition. Such teeth almost always show a crumbling of the occlusal enamel of the molars whether or not decay ensues, and there is then a closing up of the bite that will influence the occlusion of the permanent teeth and thus lead inevitably to the development of traumatic occlusion in those teeth.

In the second case, decay, traceable

probably to neglect and faulty postnatal diet, necessitated extraction of all posterior deciduous teeth. This inhibited masticatory function, and jaw development was arrested, due to lack of function. Such chewing as was done, was performed by the anterior teeth; this resulted in the child forming a faulty mandibular habit and a Class III malocclusion developed. Traumatic occlusion of the anterior teeth also resulted from their overwork, with gingival disturbance as a result.

Richard M., our third case, had inhibited jaw function also, but from sensitive teeth, not from lack of teeth. Gingivitis was already severe, from a sluggish circulation plus accumulation of infected masses of mucin and food particles; and there was every prospect that this condition would keep up through the operation of a vicious cycle, permanent teeth decaying as fast as they came in. Here there was unquestionably a systemic defect as well, with shortage of vitamin C as an important factor in the gingival inflammation.

In the case of Anna M. we had as the outstanding feature, premature loss of some deciduous molars with loss of space and migration of the permanent molars to follow. Malposition, not only of these teeth but of the bicuspid, as well, usually occurs in such cases, followed by mesial drifting of the second permanent molar and distal drifting of the bicuspid, and, in fact, the anterior teeth as well. Such malocclusions are not always unsightly but they invariably cause traumatic occlusion throughout the mouth with periodontal disease asserting itself, sometimes even in childhood.

The point I am attempting to make is that to find the origin of the case of periodontal disease that reaches its full flower, at, let us say, the age of forty, we may have to go back even into the prenatal period of that individual. Super-

vision of the diet and health of the expectant mother; supervision of the diet during infancy and, for that matter, on through childhood; early dental care, preferably starting at the age of two; prophylactic odontotomy for the permanent molars; early training in the use of the tooth brush for stimulation of the gingival circulation;—all of these have a part in the program for preventing periodontal disease as well as caries. The occlusion must be carefully watched and occlusal relationships that may cause traumatic occlusion must be eliminated.

When one observes carefully the conditions found in children's mouths, it becomes obvious why there is so much periodontal disease in the mouths of adults. Gingivitis of varying degree is as common as caries,—and that is nearly universal. The only reason we have failed to become impressed with this situation is because children seldom develop advanced lesions such as pus pockets and extreme mobility; but the gingivitis, unless eliminated in childhood, will surely continue into the years of maturity, with these more serious lesions then manifesting themselves.

One more phase of this subject and I am done. Many adults have periodontal disease which evidently had its inception in childhood. The conditions that brought it about cannot always, at that later period, be completely eliminated, hence the outlook for satisfactory treatment of such cases is correspondingly hopeless. We thus see, today, far too many cases of the type that gave rise to the remark of a very candid dentist of an earlier generation, that he couldn't cure pyorrhea but he could prolong it. Experiences with such cases force us to the conclusion that intelligent supervision of the dental health of the child today is the only effective way to stem the tide of mature periodontoclasia in the adult population of tomorrow.

Health Services to Children Across Canada 1936-1937 *

Civilization's Greatest Asset—The Health of the Growing Generation

by HARRY S. THOMSON, D.M.D., Toronto, Ontario.

"To reach out into the hinterland, into the remote and sparsely settled districts, to carry the story of better health, particularly the story of better mouth health, to little children, children under twelve years of age, whose parents are poor—too poor to buy any sort of health service—too poor to buy this service even if it were available, but it is not—to places, many of which are from one to two hundred miles from either dentist or physician—this is a part of the task and service of the Canadian Dental Hygiene Council."

ONE of the most gratifying pieces of work in the entire yearly program of the Canadian Dental Hygiene Council, in the light of results achieved, is the annual trip through Western Canada to confer with the Departments of Health of the various provinces and to meet with the Executive Committee of the various Provincial Dental Associations. This year appointments were made by our provincial representative which made it possible for me, on my western trip, to meet with the Deputy Minister and Minister of Health in the provinces of Manitoba, Saskatchewan, Alberta and British Columbia. Each of these provinces is carrying on a program of public health, three of them jointly with the Canadian Dental Hygiene Council, financed by joint contributions from the Provincial Governments, the Canadian Dental Hygiene Council and the Provincial Dental Associations.

Our Council gives some financial, and complete organization assistance in the establishment of dental clinics for school children, the most outstanding part of which has been Travelling Clinics to re-

mote and sparsely settled areas and in rural districts. Thousands of children, 12 years of age and under, have received operative treatment which has changed their diseased mouths into healthy ones. This will have a definite effect on the health of thousands of adults during the next decade. Education alone would be of little value in districts where dental services are not available. The relief of acute pain, the elimination of definite foci of infection through extraction, and conserving the teeth to maintain proper masticating surfaces, is all education in its broadest sense.

The first year these clinics are carried free to all children 12 years and under in the community, but if they desire the clinic to return the next year it is essential that the community contribute some share of the financial outlay. These clinics have been carried largely throughout the four western provinces—Manitoba, Saskatchewan, Alberta and British Columbia. The Canadian Dental Hygiene Council has made a financial contribution to each of these provinces, the Dental Association of the province has

* Presented at the Annual Meeting of the Canadian Dental Hygiene Council.

contributed a like amount, and the Department of Health of each government has contributed at least dollar for dollar of this joint amount. This money has been placed in a trust fund and is administered by a lay committee to carry on these dental clinics. The original plan of free dental clinics the first year and the community taking some financial responsibility thereafter, has worked out 100 per cent. satisfactorily. In one province last year where sixty-nine clinics were held, in which 4,279 children were treated, only three of them were free clinics. British Columbia now takes full responsibility financially for its clinics, administrative assistance only being required from the Council.

MANITOBA

In Manitoba, where travelling clinics were first carried on, the number of clinics has increased to such an extent that it is very difficult now for the Public Dental Health Committee of the provincial Dental Society to find the time to carry out the details connected with the administration of about ninety rural clinics. In some of the provinces the administrative work is carried on entirely by the officials of the Department of Health, while in others it is done by a committee of dentists. In Manitoba we have been fortunate in having Dr. Arthur Proctor, who has devoted himself very unselfishly to the management of these clinics. But the time has arrived when some other provision has to be made. With this object in view, we approached the Provincial Government asking it to increase its grant, which has been the smallest amount contributed in any of the four provinces. The Deputy Minister and the Minister have both assured us that they will give serious consideration to it when the next budget is being prepared, and I believe the increased grant will be forthcoming.

An amazing piece of work has been accomplished in Manitoba. 4,279 children, 12 years of age and under, received complete mouth health treatment. These clinics are conducted in remote and sparsely settled regions covering thousands of miles. In some places it was a travelling clinic, in other places it was "travelling children" brought to the clinic. The story of the good accomplished can best be told by the nurses who are working in the particular districts visited. The human interest stories detailed by these nurses present a picture of relief from acute suffering, a marked improvement in general health and mental progress, as well as the awakening of a keen interest in general public health among the people of the entire community where the dentist has gone.

SASKATCHEWAN

In Saskatchewan this year we have asked the Minister of Health to increase the contribution from the Government Department of Health from \$1,500 per year to \$3,000, with the grants from the Canadian Dental Hygiene Council and the Provincial Dental Association remaining constant. This the Minister has agreed to do. The scope of the work in Saskatchewan has increased tremendously during the past three years. There is a greater need for public health service in this province than in any other province of the Dominion. In over one-third of the province—the southern portion, known as the burnt out area—the people are almost destitute, and to carry any phase of public health in this community is a godsend to the people. The need for dental treatment is obvious and this travelling clinic is taking care of that need very splendidly.

Through the southern portion of this province, the drought area, the burnt-out area, in places where there has been no crop for the past eight years. No

crop of what? When we speak of a crop in the prairie provinces we usually mean wheat. But there have been crops there—boys and girls are still growing, boys and girls who will be men and women—wheat farmers, school teachers, clergymen and members of parliament in fifteen or twenty years, and it is to this crop that there has been carried this year a travelling dental clinic under the auspices of the Canadian Dental Hygiene Council, the Province of Saskatchewan Department of Health and the Saskatchewan Dental Society.

Three thousand and fifty-four children in this dried out area received complete mouth treatment, and by complete I mean that all diseased teeth were removed, all cavities filled, and diseased mouths made sweet, healthy and wholesome. This applies only to children of twelve years of age and under. Did the older children not need it? Yes, more than the younger ones, but there is not enough money to treat them all and we had to stop somewhere.

Dental services in these travelling clinics are entirely free to the individual child, but the community helps to support the clinics. In some cases this help amounts to very little. In other districts the community raises almost the entire amount. The balance in every case is paid from a fund jointly provided by the Government, the Canadian Dental Hygiene Council and the Provincial Dental Association.

I wish I had space here to incorporate a report of this free travelling clinic of Saskatchewan, which I received in a recent mail. It is so comprehensive and well tabulated that it presents a picture as clear as a photograph of the actual work accomplished. One wonders how some of these districts can raise any funds whatever, for any purpose, but they do. The people must have some entertainment, and through card parties, little

dances, basket socials and church fairs, a fund is raised "to bring the dentist". Everybody in the community has a part in it, very frequently the Women's Institute, Red Cross in some provinces, Farm Women's Organizations, School Teachers, rural municipalities — all do their bit.

The administrative work of the clinic in this province is taken care of almost entirely by the Department of Health, chiefly by the Director of Public Health Nursing, Miss Ruby Simpson, and her staff. I cannot pay too high a tribute to Miss Simpson for what she has accomplished with a limited outlay.

I wish it were possible for the Canadian Dental Hygiene Council and the dentists of Saskatchewan to provide dental treatment for all children up to sixteen years of age. This would require an entirely new program for us. It would entail a broader administrative work. The machinery to carry on would have to be provided through the Provincial Department of Health, taking advantage of the services of the Public Health Nurses, who are already greatly overburdened, so any plan would require a great deal of consideration, and I hope that during this present year we may be able to give consideration to it. On my trip through the western provinces this spring I intend to devote sufficient time to this Saskatchewan problem to try and gather first hand information as to the possibilities of such an effort, with the hope that we can do something to alleviate the immediate suffering and the subsequent ill health which will be the result of any further neglect.

ALBERTA

In Alberta, our progress in establishing dental clinics has been slower than in any of the other provinces, but during the past year a definite start has been made and a new report brings me details of their year's program showing that 958

children had received complete dental treatment.

During our conference with the Minister of Health, Dr. Cross, we asked that the grant from the Provincial Department of Health to be used in that province be increased, as an evidence of their growing interest in the work which we have been able to start and assist. Dr. Bow, Deputy Minister of Health, is very enthusiastic over the results accomplished in these travelling clinics, and I believe the increased grant will be forthcoming at the next session.

BRITISH COLUMBIA

In British Columbia, the Department of Public Health of the Provincial Government has taken over full financial responsibility for the dental clinics there, requesting from the Canadian Dental Hygiene Council and the Provincial Dental Association administrative and organizational assistance only. Dr. Young, Deputy Minister of Health, advised me that during this year his Department will spend \$20,000 on public dental health throughout the province.

British Columbia presents an example of what the Canadian Dental Hygiene Council aims to accomplish. Its first task is to go into the province and make a survey, followed by an intensive campaign to create public interest and educate people in the importance of mouth health, then assist the Government financially to institute travelling clinics to the needy, and finally, when the Government is convinced of the practicability of such a program, it then takes over full financial responsibility. We have accomplished this full objective in the province of British Columbia, and the Provincial Department of Health is taking full responsibility for the continuance of the work.

You will probably wonder how some of these communities manage to raise

sufficient funds to pay even a small share of the cost of a dental clinic, but as an illustration I would like to repeat the stories told me by two nurses from two of the provinces.

In one particular district no money appeared to be available for a dental clinic that year. Two years before they had a free one, last year they were able to give some financial help, but this year even that seemed impossible. A clergyman of the district worked out a plan. He called together the men and boys of the community, and they decided on a two-day weasel hunt; they bagged enough, selling them at 28½ cents per pelt, to provide the money necessary "to bring the dentist" to their community for six days.

Another incident, which occurred in the Peace River District where the roads are not passable in the rainy season. A village, 60 miles north of where the dentist visited last year, was very badly in need of a dental clinic. A farm implement salesman, who had moved into the district during the past year, decided on a plan whereby they could raise sufficient funds to bring the clinic, but the roads for 60 miles were impassable by automobile. They communicated with the Department of Health, learned, from the dentist's itinerary, what would be the nearest point to them that he would visit, and decided that they would take to the dentist by horse and team all children needing dental services. They gathered together a sufficient number of tents in which to house them and the necessary provisions for three days, and arrived at their destination only to find that the roads had again become impassable, and that the dentist could not even reach there this year. They returned home, still holding on to their money, to await the first opportunity when the dentist could come to them.

PRINCE EDWARD ISLAND

Away to the East, in the Province of Prince Edward Island, economic conditions are entirely different from those in the West. There are no burnt-out areas, and none of the sparsely settled or remote regions, but there is a need for dental treatment and dental health educational work, and a start has been made during this past year to take care of that need.

Following a campaign conducted in this Province by the Canadian Dental Hygiene Council in 1935, the Provincial Department of Health has made a generous grant to provide rural dental clinics, again serving only children twelve years of age and under. The latest reports received show that fourteen of these rural clinics have been held during the past year, as well as the inauguration of school dental clinics in the cities of Charlottetown and Summerside.

On our visits to the various provinces, apart from the conference with the representatives of the Provincial Governments, we are able to render assistance in further promoting Public Dental Health programs through meetings with the Executive Committees of the Provincial Dental Associations. In many of the provinces the Oral Hygiene Committees are inactive, not because they fail to realize the necessity for action, but because the Committees are composed of men located many miles apart, covering the entire province, making frequent meetings impossible. These committees are usually called together at some central point, and the Canadian Dental Hygiene Council Field Secretary is able to bring to them for their consideration some programs and plans that have been tried success-

fully in other provinces. New and gratifying action frequently results from these conferences.

The extension of the program of the Canadian Dental Hygiene Council is imperative, and any extension means that we must have increased financial support. Our budget during the last five years has remained constant while the demands made upon us for assistance have increased our activities tenfold. Requests received from the Departments of Health of the nine provinces in Canada, particularly for administrative assistance, in establishing standards of dental health education and procedure, and to co-ordinate the activities throughout the various provinces, have reached a point where it is impossible for us to comply with them all with our present financial resources. Health workers and school teachers throughout the entire Dominion depend upon us for information on public dental health matters, and requests for literature and teaching material come into our office daily from every province. In one day recently 53 parcels of printed material were sent out at the request of school teachers extending from Nova Scotia to British Columbia. These were all personal requests.

New literature must constantly be provided in which new scientific findings are incorporated, for even scientific facts do change sometimes. We strongly hope that the financial assistance necessary for the extension of our work will be forthcoming, in order that Public Dental Health Education will continue to go forward, for Dental Health is a vital part in every movement for Better Health of the people.

Finding out—not knowledge—is the spring that makes life fascinating—E. F. Benson, in Medley.

Wherein we present a discourse on Dentistry, from its inception, by one of the world's leading periodontists, written from his bed in Longwood, Florida, for the Journal of the Canadian Dental Association.

by . . .

PAUL R. STILLMAN, D.D.S., F.A.A.P., F.A.C.D., Longwood, Florida.



Progress in Dentistry

AN ideological analysis of dentistry, as we understand it today, and as it now exists, can reveal a very remarkable change of interest in the entire group of individuals who comprise the dental profession. The interests of the present are far removed from the interests of those pioneers who provided the thought which created dentistry's earliest literature. With that perspective we can identify "progress":—reference is, of course, to a progression of ideas . . . "What a big boy am I" is an absurd idea attributed to Tom Thumb, in a nursery rhyme. But are we not all of us impressed with the same general idea, as was Tom? Absurd thought it is!

One of the earliest ideas established by dentists is, "dentistry is practical." It was introduced before, or about the time that the first dental college was being organized. No dentist, even today, would attempt to defend the opposite, but we continental democrats can usually see two sides to every question, though we can accept but one. One idea leads up to, and frequently introduces another and the developing error of a second idea destroys logical sequence. For instance, one dental student asks another, "Did you pass your final examinations?" When

the reply is, "I passed my *practical* examinations but I am uncertain about my *theoretical subjects*," then, the idea "dentistry is practical," introduces a new meaning, for "practical" can have no meaning whatsoever if the idea of "impractical" is excluded. The word "theory" respectfully implies an *impractical* idea, for a *theory*, like an idea, is a subject which can exist only in the mind.

When the dental college curriculum was being assembled, "dentistry" first became accepted as a subject. The knowledges of dentistry had developed under "the indenture system" of education, generally accepted as a means for learning a trade. A curriculum was then a new idea in dentistry. The indenture system did not require a curriculum, even subjects were vague ideas, and interest had developed from objects. But a college or school requires subjects, in order to teach. The idea had been accepted that the older system of dental education was to be eventually abandoned, and the scholastic system was to supercede it. That was the intention promoted by the formula "dentistry is a profession." Building a curriculum for dentistry out of its existing knowledges presented a very perplexing problem for the found-

ers of our present scholastic system. The knowledges had developed from "eyes observing objects" and from those many other ideas had developed. An objective mode of thought had become established, where objects were indistinguishable from subjects. The subjective mode of thought permits a consideration of both.

The earlier student of dentistry, under the indenture system, was called "an apprentice." The "indenture" was a legal instrument of adoption, in which agreements were stated. "The party of the first part" agreed to *teach* and the apprentice, who was, "the party of the second part" agreed to *learn*, and the subject was the *art of dentistry*. The student was encouraged to familiarize himself with objects. When the formula "dentistry is a profession" began to be seriously interesting to dentists, thought turned to *education*, and the indenture system appeared as an object-barrier to the desire contained in the formula. A profession identifies a group which possess "a liberal *education*," or its equivalent. The profession of medicine was ideologically accepted as an ideal for the dentist of the future, but that, too, was "seen" as an object. That was more than a century ago, but like the banner "Ex-celsior" always in sight,—*"ever higher,"*—the ideal has not yet been reached. Dentistry is now a profession. Is our ideal to be like the "Will o' the Wisp?" A sage once said, "Know thyself first." Let us then, first, try to understand thought in dentistry.

In assembling the knowledges of dentistry for the college, the main subject was divided into two parts, "operative" and "mechanical." These terms identified the *dental* subjects and became popularly known as the "practical" subjects. The "theoretical" subjects were anatomy, chemistry, pathology, etc., science subjects, which had been originally developed for purposes of *medical* education.

The correlation of these subjects to *dentistry* was very obscure at that time. The college insisted upon teaching these, but to the student, their relationship to dentistry was very dim and uncertain. The student desired a *dental* education, as dentistry was then understood, and dentistry being understood as "practical," all else was labelled "theoretical." Certainly there was confusion.

The names of the dental subjects selected and adopted for the curriculum of the new college, were terms derived from the interests which had developed in the *rooms* of a dentist's office. The term, "a room" cannot be taught. The operating-room was even then a new idea, which had developed from a sequence of others. The sequence was (1) "I'm a doctor," (2) "I'm a surgeon," (3) "Surgeons operate." (4) "Operating-room." "Operative Dentistry" naturally followed. When that term was adopted as a subject for the curriculum, the name of an object represented the name of a subject. That put a strain upon intelligence and thought became tangled.

What then is "operative" dentistry? There has never existed a definition for "operative dentistry." Objects can be described but never defined. Let us not forget that the front room of a dentist's office suite includes the presence of a *person*, the dentist. And whether a back-room is permitted to appear or not, the dentist is always a front-room-man in his own office. The Professor of Operative Dentistry assumed that position on the college faculty. There he *is*, front-room-man, secure and entrenched by tradition from the indenture system.

The first Professor of Mechanical Dentistry was a graduate physician, as was his colleague in the "operative" department,—subject-branch. He resented the idea that he was in any sense a mechanic far more than he resented having second

place on the faculty. He became restive under his title. The term prosthesis had long existed as a subject in medical terminology and that term presented a principle which can be defined. Mechanical Dentistry was renamed Prosthetic Dentistry. The principle of prosthesis was equally applicable to operative dentistry, considered as a subject, but the principle could not be comprehended from the traditional perspective which operative dentistry represented to its "Professor." Both are technological, as is each object made under either "subject," whether the object is named a gold foil filling, a crown or an inlay, or a full set of artificial teeth. But had the principle been accepted when the new name was adopted, the very foundations of dentistry's scholastic system would not have survived. Thus the term prosthesis, in dentistry, still represents a name of an object without a principle. Prosthesis can only be comprehended as a subject.

Certain principles demand recognition; they intrude upon intelligence. Two kinds of dentistry have now appeared and each presents irreconcilable general principles. *Technological* dentistry is an art whose principle is "the fabrication of inert material." It is the *purpose* which is called "prosthesis." The other principle is also an art—"a branch of the healing art"—a *biological* art, as applied to dentistry. All art (each art) requires material and the kind of material employed identifies each particular art. Let us give recognition to that art which we now, as dentists, possess. It is an unusual person in the art of music, for instance, who is a "master of every instrument in an orchestra." We know of no examples of that, but we have heard of "Jack of all trades and master of none." Since the term "prosthesis" entered dentistry, there has occurred much development of what was once called "mechanical" dentistry. The objects now produced

can still be recognized as "a full set of artificial teeth" but these later ones include the idea of satisfaction to the wearer, which gives recognition to the principle of prosthesis. They now "fit." That is an old idea and not a new achievement; yet, these prosthetic appliances include the idea of physical "ease," the obverse of which is *dis*-ease. Both health and disease can be comprehended as "physical condition" and that is a biological subject of present interest. Prosthesis includes the "fitting" as well as the "making" of an appliance and it is actually the organism which identifies and permits the idea of "ease." Nevertheless, prosthesis is technological from every perspective of "fabrication of inert material."

Medicine originated the idea of prosthesis to meet the needs of a mutilated organism and it introduced the term into medical nomenclature; but in the *art* of prosthesis, dentistry has so far excelled medicine, that it can now be recognized as superior to anything similar in principle, which medicine has ever produced. That fact should present two ideas; for while dentistry can validly claim superiority for its prosthesis with its technological skills, it is not yet "coequal to medicine" in its biological skills—and that refers to "healing" art. These two skills possess general principles. They relate to "art" as art relates to *work*: viz., "something to be done." Here are two arts and two principles—and these are incompatible. Under technology it is stated with the authority of truth—*inert material cannot work*. All dentists know that is true; yet the basic idea of the "healing" art, which is a biological art, is the general principle, "*material can work*." Prosthesis has drawn closer to biological art than any other idea of art, but prosthesis can never be included in that "healing" art. It is intellectually impossible. Life and death can never unite. Prosthesis is an interest of a medical surgeon, as well as

a dental "surgeon," but the former delegates "the art of fabricating inert material" under the principle of prosthesis, while the latter has preserved and developed the art, since the days of mechanical dentistry. A physician realizes the incompatibility of the art of prosthesis with the problems so essential to his greater interests: viz., disease, and disease is *biological* while prosthesis is *technological*. Here is a bifurcation of interests, and interests are an intellectual pathway. When roadways separate and two ways are presented, intelligence insists that a wayfarer shall make a choice. Only a fool would attempt to travel both ways at once; and such a choice has come to dentistry. The general principles of two arts are known; curiously enough, both appear in dentistry, and thought is attempting an impossibility.

We have observed college classmates, who have received an identical education, abandon all forms of technological art which we all learned in college. The oral surgeon is an example. May we not properly ask why each oral surgeon "cut loose" from dentistry as we understand and interpret it? Specialization refers particularly to knowledge. As an idea, science is "something to be *known*." At least science is *not* an object. "Art refers to something to be done." That is also an idea, at least before something *is* done. When a determination to do something persisted in, art may result. Art requires material. That can exist as an idea. When literature is an objective, "literary art" appears. When technological art, such as a prosthetic appliance, is adopted as a purpose, an object is developed. But the object, to satisfy the principle of prosthesis, must satisfy an organism. When the organism can accept the appliance the principle of prosthesis

is satisfied. Regardless of appearances of technological art—work well done, so long as it remains apart from the patient, is not yet a prosthetic appliance, however well it may satisfy imagination. There is enough glory in dental prosthesis to satisfy great ambitions to serve humanity.

As in all surgery, the oral surgeon adopted an *organism* as his material. He did abandon dentistry, the art, as he was taught it, but first he abandoned the idea of "fabricating inert material." Surgery is a branch of the "healing" art, where hand-work is applied directly to *living* material. Healing cannot occur in a cadaver under anatomy and health cannot be fabricated under the principle of prosthesis. So the oral surgeon abandoned all inert material and adopted the principle of biological art. The oral surgeon is a dentist—not a physician—he represents an *inter-dental* group which satisfies the formula "dentistry is a branch of the healing art, coequal to a specialty of medicine." So long as dentistry exists it cannot be *identical* with medicine, for dentistry is a separate profession, but it can be "coequal." Dentistry, like medicine, has its own branches and its technological art, represented as prosthesis, is the older, the most matured and the most admirable in existence.

Oral surgery has arrived—*hatched* in other words. Orthodontia and periodontia are still incubating, but they, too, will "hatch" in good time. Other biological branches of dentistry may yet appear, but the two main divisions of dentistry will one day be recognized as *Technological* dentistry and *Biological* dentistry. Each will develop specialties. There were no specialties in dentistry a century ago, dentistry was one big specialty, representing a variety of knowledges, but today prosthesis leads. Let us give it acclaim.

The hour of crisis never makes or unmakes us. That hour shows forth what is in us.—John McAfee, in Medley.

Practice Management

The Journal Committee has found an increasing demand for a Section in the Journal on "Practice Management". You are invited to send your suggestions on office management and practice, or concise articles on some phase of this subject to the "Editorial Office,"
314 Somerset Building, Winnipeg.

Common Sense in Office Decoration

By CATHARINE HOWARD

Head of Interior Decorating Service, L. Bamberger and Company, Newark, N.J.

MUCH has been said about the effect of colour and surroundings on the human emotions. Psychiatrists and neurologists have written volumes on the subject and have had hospital rooms painted and furnished for the treatment of neurotic patients. How much more important should be the surroundings of the dental patient who traditionally becomes a neurotic at the thought of treatment!

A charming waiting room, interesting and restful; furniture so arranged that the seating facilities do not line the occupants on opposing walls where stranger faces stranger; operating rooms equally restful, quiet and efficient; these are the goals at which to aim.

It is not difficult, nor need it be expensive, to attain such surroundings. As the furnishings of the operating room are restricted to mechanical equipment, no purely decorative objects are needed. The walls and lighting, however, deserve some consideration. We have accepted pure white for many years. It is sanitary and reflects the maximum light, but it is hard to look at. White softened with a grayish tone, the so-called oyster white or ivory, is easier on the eyes of the dentist as well as the patient. Even a soft green would not interfere with the function of the room and is a pleasing relief

from white. The windows here should be treated in the simplest possible manner, with plain glass curtains of a semi-sheer washable fabric in white or ecru to prevent any glare. Venetian blinds painted the colour of the wall are equally good and very efficient. A floor of linoleum or rubber tile, dark in tone and simple in design, is both clean and quiet.

The reception or waiting room, which reflects the dentist's office and the dentist himself, for that matter, affords more variety of expression. Colour and arrangement are of first importance. The walls should be essentially a background and not obtrude on the consciousness. A plain coloured wallpaper, therefore, is better than a figured one but paint is preferable to either as it is more easily cleaned. The exposure and size of the room should be considered in selecting the colour. In small rooms blues, greens and very light shades of the warmer colours lend an air of spaciousness. In larger rooms more positive colours can be used. If the room is sunny, cooler colours are desirable. Some waiting rooms, lacking any daylight may be made extremely inviting by the proper use of rich colouring and good artificial lighting.

The importance of lighting cannot be underestimated. Dim lighting is never

an asset in a public room, but shaded lights are imperative to create a restful atmosphere. Every seat in the room should have adequate light for reading.

As for furniture, one may use pieces suitable for the living room of a home. However, very deep, over-stuffed lounging sofas and chairs are not always comfortable to everybody and they are hardly appropriate to the use of the waiting room. Desks or secretaries unless used by a receptionist are too personal for a semi-public room. Open bookcases are a little too inviting and closed ones too forbidding, consequently neither are desirable pieces. As in a living room, the American Colonial or 18th Century English styles are very good and excellent reproductions are now made in a wide range of prices. One advantage of these traditional pieces is their adaptability to furniture already acquired and to old, inherited pieces which are still good-looking and usable.

Modern furniture, however, is ideally suited to reception rooms and offices. It is fundamentally impersonal in style, is functional and simple in line. Because of that simplicity, colour can be played upon to give life and interest in a room so furnished.

Practical coverings on upholstered furniture are of prime importance. They are likely to get harder wear than in a home, as patients may have on damp outer clothing which is not always removed before sitting down. The wool and cotton friezes and plush mohairs used for the past twenty years are the most durable of fabrics, but they are considered a bit stuffy now and certainly are not very pleasing to the touch. A tightly woven fabric always outwears a loosely woven one, and recently the market affords innumerable weaves combining such materials as cotton and wool mixtures, or rayon and wool. These fabrics not only have a close weave but also

textured surfaces which add interest without sacrificing their wearing qualities. Leather and imitation leathers have proven very practical and inexpensive. In addition they give variety to a scheme when used in combination with rough textured fabrics.

A few well chosen prints or pictures add life and interest. Good pictures of any subject which one would use in one's living room, except, of course, a family picture, are appropriate. Well cared for plants are decorative and add considerable charm to any room, whether it is a home or a professional reception room. From personal experience, I have found that the plants which live best without a great deal of attention and are decorative as well, are philodendrons and the Chinese lily. This latter will live in water or earth and is very lasting. Aquaria might prove a worthwhile addition for the interest and attention they arouse, especially if children are among the patients. They should be so placed as to be out of reach of children.

Accessories and bric-a-brac should be reduced to a minimum, to avoid a sense of clutter. Lamps and plants take their place with much more decorative value.

Window treatment and floor coverings, while important items in a decorative scheme, do not differ much from what one would select for the average living room. The floors should be a background like the walls. Plain covering, neither very dark nor very light, of durable quality is most restful and harmonious. However, a small figured rug or carpet, not too colourful, might show dirt less and be more practical. Needless to say, it is essential that the rug colour should be considered with the colouring of the walls and furniture.

Venetian blinds take the place of the ordinary window shade and glass curtains, besides making a more interesting window. Overdraperies hanging straight

to the floor, very simple and well-made can be figured or plain as the scheme demands. Their colour can be similar to the wall, to the rug, or to tie in with the furniture, but fundamentally they should be treated as a frame to the window and not be over obtrusive.

During the past several years the home-furnishings magazines, and the educational efforts of department stores have awakened the public to a lively interest in decorating problems, consequently your patients are as aware of the background furnished by your waiting room as they are of your service.

(Of three factors contributing to success in practice, personality, environment and skill, in the above article reference was made to the element of environment only—the atmosphere of our offices. We feel so many offices are set up in a haphazard fashion, that the intangible asset of charm is involuntarily neglected. In an endeavour to dissipate a little of the cold, businesslike, stiff surroundings that do little to place a patient at ease, we have presented this short contribution, with the hope that some of us may be benefited thereby.) — *Bul. of Essex County D. Soc. of New Jersey.*

The Man Over Forty

At a time when the attention of the world is fixed upon our 69-year-old Prime Minister, I find it ironic that I should be receiving so many requests to bespeak sympathy for the men of 45 who, on seeking work, hear the dreadful knell in their ears, "You are too old!"

In all the higher levels of our social activity, we act as though the years after 40 were richest in value to the State. A politician of 45 is considered a young man. A judge of 45 is regarded as an infant phenomenon. A bishop of 45 is a racket. Our banks, big business, insurance companies are directed by men in the fifties, sixties, and even seventies.

It is difficult to understand why we should act at the top on the assumption that a man's worth to society increases after 40, while in the lower strata we so often decide that his best work is done at 45.—"The Man in the Street," in the "Star" per Medley.

Professor Albert Einstein gave recently what he considered the best formula for success in life: "If A is success in life, I should say the formula is A equals X plus Y plus Z. . . . X being work and Y being play."

"And what is Z?" inquired the interviewer.

"That," he answered, "is keeping your mouth shut."—Parade.

Prehistoric people, we are told, had trouble with their teeth just as we do. And they seem to have left their magazines behind in our dentists' waiting-rooms.—London Opinion.

The Forum

• THE MEDICAL STUDENT IN GERMANY

By DAVID H. SMYTH, M.D., M.Sc.
*Queen's University, Belfast, and Physiologisches
Institute, Göttingen.*

(Condensed from the *Ulster Medical Journal*,
Jan., 1938).

THE German universities are State institutions, but are to a large extent self-governing. Appointments to the professorial staff are made by the State, after recommendation by the university authorities. The dependence of the universities on the State is to some extent due to loss of endowments and funds during the inflation period of 1931. The administration of the university is carried out by a rector and senate elected by the university. The teaching staff consists of professors, associate professors, instructors, and assistants. There are five faculties— theology, law, medicine, philosophy, and science. In the year 1936, out of a total of 79,154 matriculated students in all faculties in the German universities, the medical faculties contained 20,204 medical students and 3,136 dental students, so that about one-quarter of the students are medical. Of these students, 3,918 are women students. These twenty-thousand medical students are divided over twenty-four centres. The largest medical schools are those of Berlin and Munich, which have each about 1,700 students. Of the smaller universities, the largest medical school is in Heidelberg, with about half this number of students.

The German student is accustomed to change his university once or twice during his studies, so that his education is carried out in two or more — usually three, different universities.

Apart from certain practical classes, there is no compulsory attendance at lec-

tures, and so the number of students in any course of lectures is more or less an index of the popularity or attractiveness of the lecturer. It can be imagined that a professor must have a certain reputation when he can get a crowded audience at 7 a.m., which is frequently the case. Early lectures are usual, and eight o'clock is considered a normal time to begin, while a nine o'clock lecture is considered to be reasonably late. On the other hand, there is an almost complete lull in activity from lunch-hour till three, three-thirty, or even four o'clock.

In order to assist students, a number of scholarships are allotted at the entrance to the university, and also during the course. These scholarships are, however, not awarded by open competition to the cleverest or most industrious, but application is made by those whose financial condition would otherwise not enable them to enjoy a university education. The amounts given vary with the candidates' requirements, and range from free study to moderate reductions in the fees. The names of candidates in receipt of this assistance are not made public, but probably up to twenty per cent. of students receive some financial help. Considerable assistance is also afforded to students by the reduced prices on railways and in theatres and concerts. Each matriculated student carries an identification card with a photograph, and production of this card procures a considerable reduction for almost all forms of entertainment and for travelling.

Today, on leaving school the German student must do two and a half years' service before he can enter the university. The first six months is occupied with

Arbeitsdienst (work service). This service consists of camps where boys of all social classes must live together and complete a period of six months in manual labour. The work includes draining swamps, working in the forests, or helping with agriculture. The benefits claimed for this service are the breaking down of social barriers, the opportunity for the future professional classes to learn to appreciate the meaning of manual work, and also the undertaking of work which otherwise could not be economically carried out. There is a corresponding service for girls, but the work is mostly housework, looking after children, and also light agricultural work. After this six months there comes for boys two years' military service before they can begin their studies. This long period of service seems to us a very long interval of academic inactivity between school and university. It results in a higher average age of student, and it also makes a young man dependent on his family for a long period.

The training of the medical student occupies six and a half to seven years. This includes one practice year after the completion of academic studies.

In the medicine course considerable attention is given to inherited diseases and their transmission. The same point is emphasized in the course on mental diseases, on hygiene, and on medical jurisprudence. This is, of course, in accordance with the huge experiment which is being carried out on sterilization of all those suffering from certain transmissible diseases of either mind or body, with a view to a general improvement in the race as a whole. In the surgery course, stress is laid on massage, physical exercises, and treatment of sports injuries. There is also a course on war surgery.

In order to be recognized as a specialist, a period of about four years in hos-

pital work is necessary. In the case of surgery the time is several years longer. In addition to this time, either one or two years is almost always spent in a laboratory, occupied with research in pathology, physiology, or some other branch of medical science. Indeed, the majority of the research workers in the laboratories are those aiming at a career as consultant physicians or surgeons.

• EDUCATIONAL PROPAGANDA

"I THINK the time is ripe for educational propaganda. It is idle to urge the nation to acquire fitness by exercising if nothing is done to make known the need for rigorous oral cleanliness as an essential of healthy teeth. Our mouths are even more important than our muscles. There can be no real health with unsound teeth or germ-infected gums.

"Accordingly I would strongly advocate newspaper advertising as the most effective type of propaganda. Such improvement as has taken place in mouth-care during the past quarter of a century has been mainly due to advertising. Unquestionably the public has been influenced for good by the advertisements of the various dentifrices, tooth pastes and powders, brushes, and mouthwashes. Despite the fact that manufacturers have been primarily concerned to stimulate demand for their own products, they have incidentally performed a very real national service.

"But more must be done. It is not, of course, for me to say how exactly the requisite advertising campaign should be financed. Nevertheless, I feel sure that a substantial fund would be forthcoming if trade and professional interests were to co-operate. The present advertisers of dental preparations might allocate a percentage of their annual appropriations to this purpose. The makers of artificial

teeth and dental appliances should also take part, and thus, if in addition every practising dentist in the country were to contribute say, a guinea a year, there should be no difficulty in raising an annual fund of £50,000.

"It can be done. The time has come when all connected with dentistry should decide that it shall be done."—*Sir Charles Higham in the Dental Gazette.*

• HABITS AND THEIR CONTROL DURING CHILDHOOD

LIP BITING

THE most common and perhaps most frequently encountered habit is lip-biting. This type presents a myriad of variations and may be easy to detect in certain cases and difficult in others. Sometimes, these habits are performed so quickly that the eye is unable to detect them. In other instances, the lip may be held quietly between the teeth in numerous positions. The most common form of lip habit follows a definite sequence. The first motion of the act consists of wetting the lip or lips with the tongue. The lower lip is turned inward and the tongue goes back into the mouth. As the tip of the tongue passes the incisal edges of the maxillary incisors, the lower lip is caught between the maxillary and mandibular teeth and pressure is exerted as the lip slowly returns to its original position. The force produced by the lip as it slides over the teeth moves the maxillary incisors labially and the mandibular incisors lingually. The deformity reaches its maximum when the discrepancy between the maxillary and the mandibular incisors becomes equal to the thickness of the lower lip.

The malocclusion is then retained by the lower lip. Variation of this habit,

such as biting one side of the lower lip at a time, rotates the disto-incisal angle of the maxillary central incisors labially. The characteristic facial expression of the lip-biter consists of protrusion of the maxillary incisors with the lower lip fitting under them when the mouth is closed.

TREATMENT OF LIP-BITING

Treatment of the lip-biting habit requires the utmost co-operation of the patient. The attention of patient and parent should be called to the habit and the harmful effects of continuing the habit should be carefully explained. To break the habit requires that the patient have the will to break it.

The motivation that will result in the "will to do" varies with each personality. It may be an appeal to the sense of pride, fear, punishment, reward or co-operative helpfulness. The fact that the habit is automatic and is done subconsciously means that some definite aid must be furnished the patient until the activating response has been eliminated. Correction of the malocclusion is of paramount importance so that the lips may be closed in comfort without an extreme effort. A pomade lipstick may be used as an aid to the patient. This will appeal especially to the very young girls, who want to use a lipstick as mother does. When the pomade is on the lips, the grease is felt when the tongue is thrust forward to wet the lips and attention is called to the act. In some instances, a mechanical aid may be used consisting of attachment bands on the maxillary incisors with spurs soldered on the lingual surfaces to prick the lip. This should be used only as a last resort and when the other methods have failed. — *Excerpt from A.D.A. Journal and Dental Cosmos, September, 1937.*

"Art is the expression of man's joy in his work."

• MISCONCEPTIONS OF MILK

FRANDSEN in the *Journal of Home Economics* presents scientific facts to disprove the popular ideas regarding milk and other foods. The author states that an increase in digestibility is caused by eating together acid fruits and milk. The conception that fish and milk are incompatible is superstition. For best curd formation in the stomach, it is not necessary to sip milk but contrarily it is more advisable to drink the milk naturally and liberally. Milk alone is not a fattening food nor is it a marked source of digestive troubles. There are no reasons whatsoever why milk and meat should not be eaten together. Many people consider milk only for infants. For adults, it is also a well-balanced diet. In the normal balanced diet, milk is not constipating nor is its bulk (containing more solid food than most vegetables) a disadvantage. The occasional exception to these facts is due to an idiosyncrasy of the individual and not attributable to milk.—*Medical Times*.



Fig. 2

This contribution to the comfort of the edentulous pipe smoker is the idea of a patient of Mr. A. G. Covell, of 318a, Harrogate Road, Leeds, to whom we are indebted for this note and the photographs. — *Dental Magazine and Oral Topics*.

• A PIPE SMOKER'S INGENIOUS IDEA

AN ingenious extension to the mouthpiece of a pipe to enable an edentulous pipe smoker to control the balance of the pipe and also to avoid displacement of the upper denture, is illustrated in Fig. 1. The pipe is held in the left lateral and canine region, and the curved extension, as shown in Fig. 2, rests along and up against the right premolars.

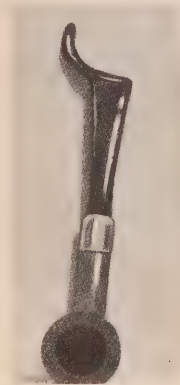


Fig. 1

• "IF THE SHOE FITS—"

DENTISTRY seems to be proud of the fact that it is considered one of the health service professions. This fact is emphasized in public addresses, news releases, and many strictly professional articles. It is made much of in the effort to secure more adequate laws regulating the practice of dentistry. It is recognized by the government, which now provides dental service for the army and for various wards of the state. The government further acknowledges the value of dentistry as a health service by the inclusion of dental divisions in state and many local departments of health.

All this is as it should be. The relation of health of the mouth and teeth to the health and well-being of the whole body has been too well established to be any longer disputed.

That being true, why do some dentists still persist in telling parents that abscessed and putrescent teeth and roots must remain in the mouth "to hold space"? Even if it were true that this would prevent malocclusion, it would not be a health service, but in too many cases the opposite is true. In addition to allowing the infection to remain, much malocclusion is caused by this bad advice. The writer sees many evidences of this in school children. Here is a boy whose bicuspid will never occlude because the upper bicuspid were crowded out next the cheek by deciduous roots, and the lowers crowded in next the tongue by the same cause; and the parents were told by the dentist that those roots must not be extracted. There is a girl with one central pointing in toward the throat because an abscessed deciduous central was "left to hold space," a permanent disfigurement because orthodontia was out of the question. These are but a few examples. They could be multiplied. We see in school children very many more crooked teeth caused by prolonged retention of diseased baby teeth and roots than from too early loss. And if too early extraction

is necessary, space retainers can be provided. We might expect that such advice today would be given only by the quack, who is not interested in health service dentistry and finds the child patient unprofitable for exploitation. Unfortunately, there are still members of organized dentistry giving parents such pernicious advice. Either they do not know any better, or do not like to work for children and are not honest enough to refer the patient to someone who will give the much needed service. There is no excuse today for such ignorance in dental society members, and the latter reason is unworthy of a member.

Probably the dentists who need this jolt the most will never see this editorial, but some recent experiences impel its writing.

Health service dentistry certainly demands the removal and prevention of infection as its first requisite.

Neglect to render health service dentistry to the child patient may seriously harm the child.—*William R. Davis—Journal of the Michigan State Dental Society.*

Conventions

MIDWINTER MEETING OF CHICAGO DENTAL SOCIETY, FEBRUARY 13-16, 1939.

SEVENTY-FIRST ANNUAL MEETING OF THE DENTAL SOCIETY OF THE STATE OF NEW YORK, HOTEL PENNSYLVANIA, NEW YORK CITY, MAY 9-12, 1939.

AMERICAN DENTAL SOCIETY OF EUROPE, LAUSANNE, SWITZERLAND,
AUGUST 5-9, 1939.

K. C. Campbell, Secretary, 88 Portland Place, London W.1., England.

AUSTRALIAN DENTAL CONGRESS, MELBOURNE, AUGUST 21-26, 1939.

AMERICAN DENTAL ASSOCIATION, MILWAUKEE, WISCONSIN. (PROBABLY IN JULY).

FIFTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB, MONTREAL,
SEPTEMBER 27-29, 1939.



PRINCE EDWARD ISLAND

SASKATCHEWAN

Editor—M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S



D. T. Wayne, Charlottetown

F. C. Harwood, Moose Jaw

NOVA SCOTIA

QUEBEC

ONTARIO

ALBERTA



F. W. Saunders, Montreal

T. R. Marshall, Toronto

S. G. Ritchie, Halifax

John Clay, Calgary

NEW BRUNSWICK

MANITOBA

BRITISH COLUMBIA



J. F. Morrison, Winnipeg

J. F. Edgcombe, Saint John

J. S. Bricker, Vancouver

St. Louis as a Convention Centre

St. Louis, one of the oldest settlements in the Mississippi Valley, was founded in 1764 and named in honour of Louis IX, of France. The fur trade was the important industry of the pioneer days. The first steamboat came up the river in 1816 and since then, trade has developed by leaps and bounds, until now it is one of the largest manufacturing cities in the world and is noted for the magnificence of its public buildings.

St. Louis became the centre of a great dental influx last October. Besides the Eightieth Session of the American Dental Association with a total registration of eighty-five hundred, the following groups convened: American Academy of Periodontology, American Academy of Restorative Dentistry, American Society of Oral Surgeons and Exodontists, National Association of Dental Examiners, American College of Dentists, American Association of Dental Editors, American Society for the Promotion of Dentistry for Children, American Full Denture Society, American Association of Women Dentists, Association of Military Dental Surgeons, National Society of Denture Prosthetists, Mouth Hygiene Workers, American Association of Public Health Dentists, Advisory Board for Dental Specialties, Pan-American Odontological Association, Research Commission of the

A.D.A., International College of Dentists, American Dental Hygienists' Association and the American Dental Assistants' Association.

A memorial service for the late Dr. C. N. Johnson was held during the A.D.A. Meeting, under the auspices of the American Association of Dental Editors with the co-operation of the American Dental Association. A splendid musical program was rendered by a string quartette and a number of prominent dentists spoke, including Dr. Moore, our Canadian Dental Association president, who very ably presented Canada's tribute to this fallen leader who was so dear to the hearts of all Canadian dentists. The program was most fitting but one was greatly disappointed in the attendance, scarcely more than one hundred being present and about twenty-five per cent of those being on the platform. How soon is even the greatest of men forgotten in these days of materialism!

Every phase of dentistry was covered during the various sessions of the A.D.A. Convention, and much material was presented by means of motion pictures, which added greatly to the clearness of perception of the subject, and to the consequent interest of the audience.

The scientific and health exhibits were again an outstanding attraction. One can read the better papers in the journals later on, but the message contained in these exhibits can only be understood and appreciated by a careful study of the material on display.

Youth Lane was one of the outstanding exhibits. This display consisted of 5,000 selected dental health posters which were contributed by children from thirty-five states. Prizes were distributed in nine different states, from the Canadian border to the Gulf of Mexico, and from the Atlantic coast to the Pacific coast. Five encyclopedias were presented to schools in which first prizes were won. More than 1,000,000 children in 35 states participated, and uncounted millions of children and adults were reached through newspaper accounts of local and state contests. Dr. Lon W. Morrey, of Chicago, is to be congratulated upon carrying to a successful issue such a magnificent piece of public dental health education.

At the Second General Session, Dr. E. Wilfred Fish, of London, England, spoke on "Bone Infection" and by slides showed that bacteria are normally confined to the periodontal pockets and that beyond this we have toxins but not bacteria. We must remember, however, that it is possible for this granulation tissue to become torn by mastication and the organisms be forced into the vessels. If such a patient has a damaged heart valve or kidney, the danger of implanting these organisms is very evident. His treatment consists of excising the pockets and keeping the tissues healthy by stimulation accomplished by the use of wooden points. Dr. Fish advises a soft tooth brush, and insists that the important thing is to harden the gums by the stimulators so as to avoid re-infection. He further reviewed his work, showing that if you use an actual cautery thoroughly around a tooth before extraction that you will not find bacteria

at the apex or in the pulp of a vital tooth but that you usually will find bacteria if you don't so cauterize. In treating Vincent's Infection, Dr. Fish uses wisps of cotton dipped in zinc oxide and oil of cloves, which are packed carefully around each tooth and which must set for two or three hours, before being disturbed.

The only Canadian essayist whose name appeared on this program was Dr. James P. Coupland, of Ottawa, whose paper on "Dental Radiography for the General Practitioner" was read by Dr. Clarence O. Simpson, of St. Louis, owing to the illness of the essayist. It was generally accepted that this paper represented the best in both radiographic thought and technique.

The Academy of Periodontology celebrated its twenty-fifth anniversary at the St. Louis meeting. Many very important papers were presented, but again, the most practical part of the program, apart from the clinics, was the Round-Table Discussion Luncheon. Some of the conclusions reached were:— that in recent years there has been little advance in scaling technique in the treating of periodontoclasia but there has been a refinement in instruments; less medication is used and that, more rationally; anaesthetics permit a more exact technique; more emphasis is being placed upon stimulation of the tissues; there is very little value in mouth smears in Vincent's Infection, as many patients having no Vincent's, have positive smears. This group was divided as to the possibility of standardizing the treatment of Vincent's Infection, but all agreed that diet played a part; that mouthwashes are necessary and that the hygiene of the mouth must be improved. The members of the group discussing the value of a complete physical examination in periodontal cases were agreed that such an examination was desirable although few cases have any systemic influence and most cases respond to local treatment without any systemic attention. It was felt that a complete physical examination was difficult to accomplish on account of the lack of co-operation on the part of the medical doctor, the cost and inadequacy of dental education making it difficult to evaluate the medical report. The question was asked, "If a bridge is indicated in a mouth with advanced, yet treated, periodontoclasia, which type is preferable, a fixed or a removable bridge?" The large majority of this group preferred the fixed bridge, soldered at both ends, and in case of very weak abutments, more than two abutments should be used.

Dr. Orban, speaking on the question of future dental standards in Austria since German occupation, stated that standards had been definitely lower in Germany than in Austria for some time, because Dr. Gottlieb had done much to develop the younger men in Vienna and arouse in them a desire for research. Now that he is gone the standards will, no doubt, be lowered to the German standards.

The dental editors' convention proved of unusual interest. One of

the leading speakers declared that we would have mediocre journalism until such time as we had better editors and until we had better contributors, all of which is perfectly true. Funds are needed, a better education is required, and a new vision is of paramount importance.

The next meeting of the American Dental Association will be held in Milwaukee, Wisconsin, probably about the middle or end of July.

Horace Wells Dishonoured in René Fülöp-Miller's Book "Triumph Over Pain"

In his story of anaesthesia entitled "Triumph Over Pain," René Fülöp-Miller is incomplete and inaccurate in his description of the life and activities of Horace Wells, the discoverer of modern inhalation anaesthesia, which is a great injustice to the memory of this great benefactor.

In this book credit for the discovery is given to Wm. Thomas Green Morton who practised in a nearby town to Hartford and who came frequently to Wells to obtain assistance in dental studies. Morton is honoured and revered by the world for his contribution to anaesthesia, particularly as he introduced ether, but he was not the discoverer of anaesthesia.

After lengthy conversations had taken place between men interested in this subject and the author of this book, it was firmly established that Mr. René Fülöp-Miller was in no way intentionally biased in his treatment of Horace Wells, the supposed slighting and maligning being the result of misunderstanding and misinterpretation due to difference in languages.

Mr. Fülöp-Miller has gladly shown his willingness to make the fullest use of the convincing material which has been brought to his attention and this information will be included in any future editions of "Triumph Over Pain" both in English and in foreign languages, and in particular, Mr. Miller will suggest the use of said additional information and material in the contemplated motion picture version of "Triumph Over Pain."

We wish to inform our readers as to the historic status of this book and at the same time express the thanks of the Canadian profession to the author, the editor of the Publishing Company and to the interested dentists for bringing this unfortunate controversy to a happy conclusion.

1938 Index of The Journal of the C.D.A.

The index of Volume IV of the Journal of the Canadian Dental Association has been placed at the end of this issue of the Journal and has been so arranged that those who have been in the habit of binding each successive issue can have the index removed and placed at the front of the volume.

BOOK REVIEWS

Dental Science and Dental Art, edited by Samuel M. Gordon, Ph.D., National Research Council Fellow (Biological Sciences), 1926-1928; director, American Dental Association Bureau of Chemistry and secretary of the Council on Dental Therapeutics, American Dental Association, 1928-1937. Published 1938 by Lea and Febiger, Washington Square, Philadelphia, Pa. Octavo, 731 pages, illustrated with 224 engravings. Cloth, \$9.50 net.

This work was inspired by the editor's recognition of the fact that the scientific aspects of dentistry were still largely unwritten. The book presents the scientific bases for investigation and practice of dentistry by drawing in the allied sciences. The whys and wherefores of many accepted practices are rationalized from broad biological and scientific viewpoints.

The following nineteen distinguished contributors have collaborated in the presentation of their special knowledge:—Babkin, B. P., M.D., D.Sc.; Brodie, Allan G., M.S., D.D.S.; Cornbleet, Theodore, M.D.; Dean, H. Trendley, D.D.S.; Gafafer, William M., D.Sc.; Gordon, Samuel M., Ph.D.; Gottlieb, Bernhard, M.D.; Hull, Thomas G., Ph.D.; Jay, Philip, D.D.S.; Karshan, Maxwell, Ph.D.; Lyons, Harry, D.D.S.; Moose, Sanford M., D.D.S.; Orban, B., M.D.; Peyton, Floyd A., D.Sc.; Rosebury, Theodor, D.D.S.; Schour, Isaac, Ph.D., D.D.S.; Seevers, Maurice H., Ph.D., M.D.; Tainter, Maurice L., M.D.; Tuohy, Edward B., M.D.

The following subjects are dealt with in a masterly manner: Tooth Development, Dental Histophysiology, Calcium-Phosphorus Metabolism, Biology of Investing Structures of Teeth, Biologic Aspects of Orthodontia, Physiology of the Salivary Glands, Salivary Calculus, Dental Caries, Calcium and Phosphorus Compounds in Relation to Dental Nutrition, Chronic Endemic Dental Fluorosis, Vincent's Infection, Selected Diseases of the Mouth, The Pulpless Tooth, Restorative Materials, Inhalation Anaesthesia, Clinical Aspects of General Anaesthesia, Local Anaesthesia, Antiseptics and Disinfectants, and Statistical Methods in Dentistry.

The bibliography of each subject is very complete and very valuable.

Much of the material appearing in this book has never appeared elsewhere, thus both the material and the point of view are new.

It is some time since the reviewer has read a book of such vital interest and with so many practical applications to the practice of dentistry.

Undoubtedly, this book can be studied with great profit by student, practitioners and all scientists directly or indirectly interested in dentistry.—*M. H. G.*

Conduction, Infiltration and General Anaesthesia in Dentistry, by Mendel Nevin, D.D.S., former Oral Surgeon, Greenpoint Hospital; former Oral Surgeon, Hospital for Deformities and Joint Diseases; Consultant Anaesthetist, Ocean Hill Memorial Hospital; and P. G. Puterbaugh, M.D., D.D.S., Professor of Principles of Medicine and Anaesthesia, and Associate Professor of Oral Surgery, Chicago College of Dental Surgery. Fourth edition. 412 pages. Illustrated with 213 engravings and a large trigeminal nerve chart. Published, 1938, by Dental Items of Interest Publishing Company, Inc., 2921 Atlantic Avenue, Brooklyn, New York. Price, \$6.00.

Since publication "Conduction, Infiltration and General Anaesthesia in Dentistry" has gone through three editions and has required ten printings. This new fourth edition retains all the instructive value of the original work plus the more modern developments of local anaesthesia and general anaesthesia technique, armamentarium and pharmacology. There is a large full colour chart of the trigeminal nerve bound into the book, in addition to the several hundred illustrations on anatomy and injection technique. In the field of pharmacology in local anaesthesia, the most noteworthy changes have taken place. Procaine is still the most popular, but many new anaesthetics are pushing to the front with which every dentist should be familiar. One of these is monacaine, which the authors claim as more potent than a 2 per cent procaine solution, and less toxic,

which claims are clearly outlined in this book. The buffered and alkalized anaesthetic solutions are also a comparatively new development, and these are fully discussed. It is further pointed out that procaine itself, without the vasoconstrictive action of epinephrin is actually more toxic than when the vasoconstrictive is added.

Fred R. Adams, D.D.S., F.I.C.D., has added an interesting chapter on "Pain Control in Dentistry" and sixty well-illustrated pages are devoted to general anaesthesia, carefully written by Dr. Puterbaugh.

This book is printed on excellent paper, beautifully illustrated and can be highly recommended to our readers.—M. H. G.

NEWS FROM THE PROVINCES

QUEBEC:

Montreal Dental Club

On the evening of November 7 the members of the Montreal Dental Club listened to an address entitled the "Trend of Dental Education," delivered by Arthur L. Walsh D.D.S., L.D.S., F.A.C.D., acting Dean of the Faculty of Dentistry of McGill University. The essayist compared the curriculum for the present student in dentistry with that for the student of a few years past, explaining in detail the improvements in each department of the faculty to broaden the present day student's education in health subjects, at the same time stressing the point that the art of manual dexterity was not being neglected. The Dean concluded his address by warning the members that much thought must be given to the subject of preparation for the reception of socialized dentistry in the Dominion of Canada. He stated that he believed dentistry should be available to all citizens and that unless the dentist formulates the plan to accomplish this, in the very near future it would be formulated by politicians. The address of the evening was followed by an oyster supper, 75 per cent of the club membership enjoying the evening which was presided over by President C. H. Barr.

Mount Royal Dental Society

The first meeting of the current session of the Mount Royal Dental Society was held in the Mount Royal Hotel on November 1, 1938. Dr. Gerald Franklin, the president of the Society, was in the chair.

After his address of welcome, Dr. Franklin outlined the program for the coming year. He stated that several groups were now working on case reports and table clinics, which will be presented, shortly, before

the membership. Post-graduate courses in Crown and Bridge and Mouth Rehabilitation and in Full Denture Procedure, to be given by outside clinicians, will also be available to the members this year.

The remainder of the evening was spent in open discussion in which all those present took part.

Women's Club

On Tuesday afternoon, November 8, Professor D. Prescott Mowry addressed the Women's Club of St. Lambert on periodontia.

Adirondack Dental Society

The Adirondack Dental Association of New York held its Fall meeting at the Mount Royal Hotel in Montreal taking advantage of the attendance of so many of its members at the 14th Fall Clinic of the Montreal Dental Club on October 12-14.

Annual Winter Meet

Preparations are well under way for the Annual Winter Meet to be held at the Seigniory Club at Montebello, Quebec, early in February. This year the Montreal Dental Club will be joined by the members of the Ottawa District Dental Society.

Address by Arthur L. Walsh

Arthur L. Walsh, D.D.S., L.D.S., F.A.C.D., addressed the Montreal Dental Nurses and Assistants Association on Tuesday Evening November 8, the title of his address being "Biological Sciences and Dental Nursing." Miss Martha Barber, Vice President of the Club occupied the chair.

Dental Nurses and Assistants

Mrs. (Dr.) J. A. Nutter was the guest speaker at the October 4 Meeting of the

Montreal Dental Nurses and Assistants Association held in their club rooms, the president Miss Mildred Starr presiding. Mrs. Nutter, in her address, explained fully the aims and objects of the Junior Red Cross Dental Clinics established in the different schools in Montreal and suburbs.

NOVA SCOTIA:

Cornwallis Society

At an organization meeting of the Cornwallis Dental Society held early in October, the following officers were elected:

President—Dr. H. L. Harris, Kentville.
Vice-president—Dr. F. L. Comstock, Berwick.
Secretary-Treasurer—Dr. Eugene Eaton, Wolfville.
Executive Member—Dr. W. H. Young, Kentville.—*N.S. Advertiser.*

ALBERTA:

Edmonton Dental Society

At the November meeting of the Edmonton Dental Society Dr. L. B. Pett, Department of Biochemistry, University of Alberta, was the guest speaker. His topic was, "Diet and the Teeth." Following his address, Dr. Pett demonstrated some of the methods he followed in his recent research on Vitamin "A."

There was given a report also on the recent public school dental survey in Edmonton.

Doctor Thorpe

The many friends of Dr. Roy Thorpe of Calgary, regret his present serious illness, and wish for him a complete recovery before many weeks have elapsed.

Calgary Dental Society

The October meeting of the Calgary Dental Society was held on October 17, with the best turnout in years.

Dr. J. M. Dixon gave a very interesting clinic on "Impressions," reviewing the clinic given by Dr. I. H. Ante, of Toronto, in September. This clinic was well received and caused a great deal of discussion among those present.

Dr. H. L. Freeland, chairman of our recently appointed Research Committee, gave a report on the work done to date. This Committee has been making tests of the

efficiency of procaine borate tablets for local anaesthesia. While satisfactory progress has been made, no detailed report will be given until the January meeting.

Contact has been established and a working arrangement has been made with the Research Commission of the American Dental Association.

SASKATCHEWAN:

Moose Jaw Dental Society

The Moose Jaw Dental Society held its opening meeting for the season in the Grant Hall Hotel, on Tuesday, November 8. The members enjoyed an hour of bowling, previous to the dinner. During the business meeting, with Dr. Lowey, the president, in the chair, plans were discussed for the winter season, and the committees were elected. Dr. Fred Cooper was chosen as chairman of the Program Committee and Dr. Gordon Beesley, as chairman of the Entertainment Committee. An active season is anticipated.

Doctor Roy Johnson

The many friends of Dr. Roy Johnson, Regina, will regret to learn that he suffered a rather serious accident some time ago while shooting. A pellet of shot injured one eye; however, there is hope for his complete recovery. Dr. Johnson was a patient in the Grey Nuns Hospital, Regina, for some weeks, and is now recuperating in the United States.

Regina Dental Nurses

Miss Audrey Earle was elected president of the Regina Dental Nurses' Association at the business meeting held on Monday, November 7. The members first met in supper session at the Sandwich Shelve and afterwards conducted the business in Dr. C. W. Parker's office. Other officers elected were: vice-president, Miss Mary Brett; secretary-treasurer, Miss Doris McDonald; press correspondent, Miss Jean Harvey; educational committee, Mrs. J. D. Clare Thacker and Miss Lila Arnot; social convener, Miss Marjorie MacLennan; sick visiting committee, Miss Lucille Hammond and Miss Bea Metcalfe.

MANITOBA:

Manitoba Dental Association

The following twelve new members have been added to the register of the Association during the past year, all of whom have the Dominion Dental Council Certificate of Qualification: Dr. M. J. Averback, Dr. J. A. Christie, Dr. A. Diner, Dr. S. Goodman, Dr. W. I. Jackson, Dr. F. Jones, Dr. J. A. Ludwig, Dr. D. W. McCord, Dr. M. Palansky, Dr. J. B. Rumberg, Dr. C. D. Rusen, and Dr. P. H. B. Wood. All have registered in Greater Winnipeg, with the exception of Dr. Ludwig, who has located in Carberry.

Winnipeg Dental Society

About forty members of the Winnipeg Dental Society attended the dinner meeting on Thursday, November 10, to hear the subject of "New Discoveries in Vitamins" discussed by Dr. F. D. White, Assistant Professor of Biochemistry on the Medical College staff of the University of Manitoba.

From the viewpoint of the Biochemist, the importance of the presence of adequate amounts of all the vitamins in the daily diet cannot be over-emphasized, and while the knowledge of the presence of vitamins in our foods is comparatively recent, the medical diagnostician is now able to more accurately diagnose and treat physical human ailments resulting from vitamin deficiency.

Dr. White's presentation of his paper created much interest and many questions were asked and discussed.

Dental Nurses and Assistants

Members of the Winnipeg Dental Nurses and Assistants Association held their regular monthly dinner meeting for October on Monday, the 3rd.

Dr. Margaret Owens was the guest speaker for the evening and gave a very interesting address on "Diet in Relation to Dentistry."

During the business meeting Miss K. Athey, Membership Convener, introduced ten new members to the Club.

ONTARIO:

C.D.A. and Customs

Another instance of the value of a live, national organization in dentistry came to no-

tice recently in Toronto. The Public Dental Health Committee of the Academy of Dentistry was endeavouring to import some display material prepared by the American Dental Association. Owing to the fact that this material was to be used in store windows the Customs Department insisted on levying duty charges. These charges were quite an item, as the equipment in question is fairly valuable. Dr. S. A. Moore, President of the C.D.A., interceded on behalf of the Academy committee. His letter to Mr. Hugh Scully, Commissioner of Customs at Ottawa, follows, together with a paragraph from Mr. Scully's letter to Dr. Moore:—

Mr. Hugh Scully,
Commissioner of Customs,
Ottawa, Canada.

Dear Sir,—I wish to draw to your attention a matter which has just arisen with reference to the education of the people of Canada regarding their dental health. It has been and is the practice of different recognized dental organizations throughout Canada to organize and sponsor meetings, demonstrations or exhibits which may assist in the education of the citizens of our country, as regards matters pertaining to dental and oral health.

The dental profession feels that it has a great responsibility in this connection. The different organizations receive no revenue from these efforts, nor do they make any charge to the public, so that it is of vital importance that the expense be kept at a minimum. It is also most desirable that all information disseminated and any display exhibited be the most recent and from an unquestionable source. I am sure that you will agree with me.

The Academy of Dentistry of the City of Toronto, through its Public Dental Health Committee, proposes undertaking certain demonstrations in the City of Toronto, in the interests of educating the public to the importance of dental health in relation to its general health. In connection with this endeavour, it wishes to place on display in certain store windows some display material prepared by the American Dental Association. This is very desirable material, of a high ethical standard and of great educational value, but cannot be procured in Canada. If this material were used at a dental convention, it could be imported, in bond, without duty, and returned, but if it is im-

ported to be used in an effort to educate the general public, there is at present no ruling which would allow it to come in, in bond, duty free, so that it might be returned after being exhibited.

The profession of dentistry feels very keenly about this matter and believes that it would be in the interests of the people of this Dominion that a ruling be made to allow such material to be imported temporarily and returned without any duty. First and foremost, this material is imported in the interests of public health, and there is no question of commercial advertising involved, nor does the question of profit or revenue enter into the case. This material is not manufactured nor is it procurable in Canada and would be returned to the country of origin immediately after the exhibit.

In view of these circumstances, may I anticipate a favourable ruling regarding this matter. Should you feel that this privilege, if granted, might be abused, I believe that the Canadian Dental Association would be willing to assume certain responsibilities as regards the dental profession and any requests for importation of material under this ruling might be made through our Executive, which would in turn, after investigation, make certain recommendations to you.

Due to the urgency of this matter, I am writing you directly but am also sending a copy of this letter to Dr. J. Stanley Bagnall, Halifax, Nova Scotia, Chairman of our Legislative Committee.

Yours truly,
(Signed) STEPHEN A. MOORE,
President,

Canadian Dental Association.

*Paragraph from Commissioner of Customs,
Ottawa, to Dr. Moore:*

Your representations for the entry of the display material without payment of duty and taxes have been carefully noted, and, as a special case and in the endeavour to meet the situation, the Department is prepared to permit the store windows to be constituted as Customs Bonded Warehouses for the short periods mentioned, and for the goods to be entered therein free of duty and taxes under the regulations established under the authority of Item 700 of the Customs Tariff. It will be necessary for

the Toronto Academy of Dentistry, the importers, to execute the bond as required under the regulations, which bond is conditional on exportation of the goods within ninety days or payment of duty and taxes in the ordinary course.

Toronto Academy of Dentistry

The annual dinner meeting of the Toronto Academy of Dentistry was held on October 24. Dr. Harold W. Hoag, President of the Academy, was toastmaster. Guests at the head table were: Dr. Carleton Wesley Stanley, President of Dalhousie University, speaker of the evening; Hon. Dr. H. J. Cody, President of the University of Toronto, who introduced President Stanley; Dean Mason of the Faculty of Dentistry, Toronto; Dr. John Cummer, President of the Hamilton Dental Society; Controller Dr. Conboy; Dr. Harry Thomson; Dr. Klinger of Melbourne, Australia; Dr. Harvey Reid; Dr. Walter Willmott; Dr. Harold Clark; Dr. A. J. McDonagh; Dr. E. C. Veitch, President of the Board of the R.C.D.S., and Dr. W. J. Trelford.

Early in the proceedings Dr. Hoag voiced the regrets of the profession on the death of Dr. W. G. Switzer, popular member of the Dental Faculty staff. One minute's silence was observed in his honour.

Dr. Ruth Drewbrook, President of the Ladies' Dental Auxiliary, was present and was presented with a bouquet of flowers on behalf of the fellows of the Academy.

Dr. Cecil Trotter was honoured with an honorary life membership in the Academy. Dr. Harry Thompson, popular field-secretary of the C.D.H.C., made the presentation with an outline of some of Dr. Trotter's very splendid achievements. The Academy is indeed to be congratulated in honouring such a worthy colleague as Dr. Trotter. Although retired now from active practice, he has always enjoyed a busy practice and in spite of this has had time to promote the interests of his profession, particularly in the realm of public health. He was graduated from Varsity in Arts in 1894 and in Dentistry in 1896. He served on the Board of the R.C.D.S. for several years. He was one of the founders of the Canadian Oral Prophylactic Association and has been Chairman of the Canadian Dental Hygiene Council executive committee since the inception

of the organization. He served on the senate of the University of Toronto from 1927 until 1936.

Dr. Stanley presented a very able address to an audience of some 300 guests and members of the Academy. He chose as his subject, "The University and Its Professional Schools." He challenged his hearers with the suggestion, "You can call the dental profession a learned profession only if its members are thinking beyond themselves." He suggested again that a college education was the gateway to mental activity and advocated that one's thinking faculties should be continually improved and not allowed to deteriorate. Dr. Stanley is a graduate of Toronto University and has availed himself of wide educational experience since that time. His message was greatly appreciated by the fellows of the Toronto Academy of Dentistry.

Grey and Bruce Dental Association

At a meeting of the above Association held the end of October the following officers were elected: Honorary President, Dr. Norman K. Douglas, Owen Sound; President, Dr. M. C. G. Bebee, Owen Sound; First Vice-President, Dr. Alex. Campbell, Wiarton; Secretary-Treasurer, Dr. Wilson Bedell, Owen Sound.

Arrangements were made for the continuance of the dental clinics through which district dentists are able to take advantage of the latest advances in dental science.

Hamilton Dental Society

The opening meeting of the season in Hamilton was addressed by Dr. Brown Landone of New York. His subject was, "The Emotions and How They Affect the Internal Secretions." Dr. John Cummer was chairman. On November 15, Dr. E. C. Stafne of Mayo Clinic, Rochester, addressed the Society on "X-Ray Interpretation and Bone Disease." This was a well-attended meeting and Dr. Stafne presented a most instructive address with slides.

Toronto Junior Academy of Dentistry

The Toronto Junior Academy of Dentistry is an organization functioning under its parent body, the Toronto Academy of Dentistry, and coming directly under the control of the section on Public Dental Health. This above mentioned organization is limited to the fourth and

fifth year students of the Faculty of Dentistry of the University of Toronto; there is no membership fee and attendance is entirely voluntary.

The constitution at present consists of an undergraduate president, vice-president and secretary, elected by the popular vote of the student body and an honorary president and advisor appointed by the committee on Public Dental Health of the Toronto Academy of Dentistry.

The undergraduate president for this 1938-39 session is Mr. John French and the honorary president and advisor is Dr. George A. Morgan.

The purpose of this society is four-fold:

1. To demonstrate in a practical way to the undergraduates the value of post-graduate association with organized dentistry.
2. To bring into intimate contact with the student body leading dentists in practice.
3. To teach undergraduates the proper methods by which to conduct clinical meetings and study groups.

4. To acquaint undergraduates with other aspects of current professional trends and practices.

The program for 1938-39 calls for five meetings covering the following subjects:

1. Minor Oral Surgery.
2. X-rays and Diagnosis.
3. The Inter-relationship Between Medicine and Dentistry.
4. Children's Dentistry.
5. Patient Psychology and Office Management.

The first of these meetings took place at Newman Club on Tuesday, November 1, with an attendance of fifty-six students out of a possible eighty-three. Dean Mason spoke briefly.

Students belonging to the Junior Academy are allowed to attend any stated meeting of the Toronto Academy of Dentistry.

Owen Sound

Congratulations to Dr. George H. Holmes on his appointment to the office of Registrar of Deeds for the County of Grey. Dr. Holmes assumed office on November 1. He retired from practice early in the summer and was given a complimentary dinner and presentation. Dr. Harry Leggett presented him with an address of eulogy and a thermos set on behalf of the dentists of Owen Sound. Dr. Holmes was graduated from the School of

Dentistry of the R.C.D.S., Toronto, in 1905 and has served his profession well. He was for many years a member of the Board of the Royal College of Dental Surgeons and served as chairman in 1935 and 1936.

•
Toronto Dental Nurses Alumnae Association

The regular monthly meeting of the Toronto Dental Nurses Alumnae Association took the form of a "Mother and Daughter" night, when the Alumnae entertained mothers and friends at a dinner under the convenship of Miss Eleanor Crerar on November 8 at the Coffee Shop in Greenwich Village, Miss Dorothy Col-

lett presiding. Miss Pearl Bartindale was presented with a certificate of Honorary Membership as concrete evidence of the honour bestowed on her at the September meeting. The speaker of the evening was Mr. Robert E. Mills of the Children's Aid Society of Toronto, who gave an illustrated talk on various phases of the society's work.

■
Appointment of Dr. W. G. McIntosh

Dean Mason announced the appointment of W. G. McIntosh, D.D.S., to the Toronto Faculty of Dentistry staff as Demonstrator in Periodontology. Dr. McIntosh is a graduate of 1937 class.

EMPIRE NEWS

GREAT BRITAIN:

Dentist Gassed Accidentally

While experimenting with a newly-invented gas apparatus which he had not previously used, Mr. Frederick Ranson Pickard (36), dental surgeon, Cockfosters Road, Hadley, Herts, accidentally gassed himself.

This was disclosed at the inquest at Southgate yesterday, when a verdict of "accidental death" was recorded.

Dr. John Oliver, of Cockfosters, said that Mr. Pickard had the nasal piece of an apparatus on his nose. He was holding a bulb attached to a tube.

The apparatus was a new invention, and its purpose was for patients to give themselves gas if they felt pain during the filling of teeth.

Dr. Oliver found an analgesia attachment was connected to the patient's end of a tube whereas it should be attached to the mixing stop-cock of gas and oxygen apparatus.

—*Glasgow Evening Citizen*, Oct. 29, 1938.

•
AUSTRALIA:

Australian Dental Congress

In 1939 the most important event of the year for the profession in Australia will be the Congress of the Australian Dental Association, to be held in Melbourne from August 21 to 26. The Congress organization consists of Executive and General Committees, 14 committees devoted to various interests, and a large number of scientific and

allied sections. The President-elect is Dr. J. Monahan Lewis, and the Organizing Secretary, Mr. Geo. Finlay. Dr. F. A. Aird has been appointed Secretary for the Scientific Section. As the main object of the Congress is the presentation of papers, clinics and demonstrations of the highest standard obtainable, all who attend will have the opportunity of acquiring increased knowledge and skill. At the same time, the facilities offered for formal and informal social gatherings will reveal the high status to which dentistry has now attained, and give opportunities of renewing old friendships. Representative delegations will attend from all states of the Commonwealth and from New Zealand. Eminent members of the profession abroad have already expressed their intention of being present. The Chancellor of the University of Melbourne has accepted the position of Patron.

•
SOUTH AFRICA:

Red Cross Health Scheme Launched

A comprehensive scheme for popular health education in the Union, with the object of placing health education and propaganda on a national basis, has been submitted by the South African Red Cross Society to Dr. Eustace Cluver, the recently appointed Secretary for Public Health, and has been launched with the approval of his Department. A sum of £1,150 has been set aside by the Public Health De-

partment as a preliminary grant, and Colonel F. H. Welsh has been appointed by the Red Cross Society to organize the scheme. Steps have already been taken which will centralize efforts at educating the public, both European and native, and Dr. Cluver has described the scheme as "the most comprehensive and efficient planning of this important function of public health education which I so strongly desire to see emphasized in our national life."

Within the framework of the Red Cross Society the scheme creates a Health Education Committee with its ambit the whole of the Union. The committee will be responsible for propaganda on physical fitness, cleanliness, sanitation, nutrition, sex hygiene, mental hygiene and venereal disease, and in addition will deal with dental disease, tuberculosis and the simple aspects of infectious and parasite disease.—*Dental Magazine and Oral Topics.*

GENERAL NEWS

President-Elect of the A.D.A.

Dr. Arthur H. Merritt, of New York City, was elected by acclamation to the position of president-elect of the American Dental Association, at the St. Louis Convention.

Dr. Merritt is president of the American College of Dentists, past-president of the American Academy of Periodontology and a fellow of both organizations. He received the honorary degree of Master of Science at the University of Michigan, last June, an exceptional recognition, as few dentists are so honoured and especially as the recipient was not a graduate of Michigan.

In this appointment there is occasion for mutual congratulation, for while Dr. Merritt is to be congratulated on being elected to this high office, the Association is most fortunate in having a man of such unquestionable ability and high ideals at the helm during the troublesome times which appear on the horizon.

Dr. F. W. Saunders Honoured

At a recent meeting of the International College of Anaesthetists, Dr. F. W. Saunders, of Montreal, was made a Fellow of that organization.

Dental Specialties

Representatives of the dental specialty societies, educational associations, examiners organizations, the American Dental Association and the American College of Dentists held a conference in St. Louis, October 24, to consider the status of dental specialties.

Ten organizations of the fourteen invited had representatives present. After discussion it was resolved to recommend to the constituent societies:—

1. That representatives be appointed for a meeting to be held next year in connection with the A.D.A. to organize an Advisory Board for Dental Specialties and to be the members thereof.

2. That the set-up of the specialty examining boards be similar to those for the medical specialties.

3. That the qualification for certification after 1945 be three years of practice after graduation from an acceptable dental school plus a master of science degree obtained under a graduate faculty of a university with the major in the subject of the specialty.

4. That provision would need to be made for standards of qualification for well recognized specialists of five, ten, fifteen or more years' standing.

5. That efforts should be made to stimulate graduate work in dentistry with professors of dentistry in the graduate faculty so that preparation for an M.S. degree with major subject in the field of the specialty may be possible.

6. That the Advisory Board of Dental Specialties, when organized, shall publish a roster of certified specialists with preparation of each.

7. That efforts be made to discourage legislation which tends to hamper the free development of specialties in the profession but legislation should be encouraged which places the regulation of specialties in the hands of the State Boards of Dental Examiners.

Dr. Harold J. Leonard, of New York City, was elected chairman and Dr. Sterling V. Mead, of Washington, D.C., was elected secretary of an organizing committee to prepare for the meeting next year.

The Late M. Georges Villain

At a recent meeting of the F.D.I. in Paris, it was proposed to perpetuate the memory of the late M. Georges Villain by the erection of a bust in bronze, and by the creation of an international prize bearing his name. A French Committee is to be set up, which will appeal for funds.—*Dental Magazine and Oral Topics*.

XI PSI PHI Fraternity, Golden Anniversary

The Golden Anniversary Celebration of the founding of Xi Psi Phi will be held at Ann Arbor, Michigan, on February 8-9, 1939. An elaborate program has been arranged which includes the unveiling of a memorial on the campus of the University of Michigan, in commemoration of the founding. The founders will be guests of honour. All Xi Psi Phi's are urged to attend this notable and outstanding event.

J. Floyd Alcorn, General Sec'y,
3720 Washington Blvd.,
St. Louis, Missouri.

Association Activities.

The Report of the Special Committee of the House of Delegates of the American Dental Association Appointed to Consider the Recommendations of the Technical Committee on Medical Care to the President's Interdepartmental Committee to Co-ordinate Health and Welfare Activities as Presented to the National Health Conference in Washington, D.C., July 18, 19, 20, 1938.

INASMUCH as the dental profession has long been aware that the control of dental disease is necessary to the maintenance of health, and inasmuch as the Report of the Technical Committee to the President's Interdepartmental Committee has recognized the fact that dental care constitutes an integral part of a national health program, and inasmuch as the dental profession is the only group having the training and the legal authority to treat dental disease, your Committee has drawn up the following declaration of principles and recommendations which it believes should be presented by the American Dental Association to the Federal Government for its assistance in planning the dental phase of a general health program.

PRINCIPLES

Your Committee recommends that in the formulation of any national health program, the American Dental Association should insist

on inclusion of the following principles:

I. In all conferences that may lead to the formation of a plan relative to a national health program, there must be participation by authorized representatives of the American Dental Association.

II. The plan should give careful consideration to, first, the needs of the people; second, the obligation to the taxpayers; third, the service to be rendered, and, fourth, the interests of the profession.

III. The plan should be flexible so as to be adaptable to local conditions.

IV. There must be complete exclusion of non-professional, profit-seeking agencies.

V. The dental phase of a national health program should be approached on a basis of prevention of dental diseases.

VI. The plan should provide for an extensive program of dental health education for the control of dental diseases.

VII. The plan should include provision for rendering the highest quality of dental service to those of the population whose economic status, in the opinion of their local authorities, will not permit them to provide such service for themselves, to the extent of prenatal care, the detection and correction of dental defects in children and such other service as is necessary to health and the rehabilitation of both children and adults.

VIII. For the protection of the public, the plan shall provide that the dental profession assume responsibility for determining the quality and method of any service to be rendered.

RECOMMENDATIONS

Your Committee has considered the five recommendations of the Technical Committee, and, as far as they apply to dental service, makes recommendations as follows:

I. Expansion of Public Health and Maternal and Child Health Services.

(A) Expansion of General Public Health Services.

(1) Your committee approves of the general expansion of public health services and, in addition, recommends the establishment of a federal department of health with a secretary who shall be a graduate in medicine, and who shall become a member of the President's Cabinet, and a first assistant secretary who shall be a graduate in dentistry.

(2) In an expanded public health program which involves consideration of the expenditure of millions of dollars for public health purposes, your Committee recommends that the problem of dental caries and of other dental diseases be included.

(B) Maternal and Child Health Services

Your Committee approves this section, provided dental care of mothers and children be included. It is, of course, understood that the necessary funds will be allocated for these services.

II. Expansion of Hospital Facilities.

Your Committee recommends that due consideration be given to the inclusion of adequate facilities for dental services.

III. Medical Care for the Medically Needy and

IV. A General Program of Medical Care.

(1) Your Committee is convinced that satisfactory dental service cannot be rendered under a compulsory health insurance system. It, therefore, does not favour such a plan, but it does approve voluntary budget plans under professional control which will enable patients to "apportion costs and timing of payments so as to reduce the burdens of (dental) costs and remove the economic barriers which militate against the receipt of adequate (dental) care."¹ (The word "dental" was substituted by the Committee for the word "medical" in the original quotation.)

(2) The Committee approves the recommendation that such a program should provide for "continuing and increased incentives to the development and maintenance of high standards of professional preparation and professional service."²

V. Insurance Against the Loss of Wages During Sickness.

Considered without recommendation.

CONCLUSION

Your Committee agrees with the Technical Committee that "as progress is made toward the control of various diseases and conditions, as facilities and services commensurate with the high standards of American medical practice are made more generally available, the coming decade, under a national health program, will see a major reduction in needless loss of life and suffering—an increasing prospect of longer years of productive, self-supporting life in our population."² It also believes

that the above statements apply equally to dental practice and that the enumerated benefits would be enhanced by early and regular dental care in childhood.

Your Committee offers two final recommendations:

(1) In view of the fact that dental caries is the most prevalent disease of mankind, that the American Dental Association strongly recommend that the Federal Government augment, with a comprehensive research program, the efforts of the organized dental profession to determine the cause of this disease.

(2) That in keeping with the first main principle of this report, a committee of five practising dentists be appointed by the Board of Trustees, together with such technical advisers as the needs of the committee require, to fulfil the provisions of Principle Number 1.

—*Jour. of the A.D.A. and Dent. Cosmos.*

1. "A National Health Program"; Recommendation 4, par. 4.

2. Ibid; Recommendation 5, last paragraph.

Mental Health

First prize in a contest conducted by the Cleveland Academy of Medicine was awarded in a contest among its members to the following ten rules:

1. Have a hobby. Acquire pursuits which absorb your interest. Sports and nature are best.

2. Develop a philosophy. Adapt yourself to social and spiritual surroundings.

3. Share your thoughts. Cultivate companionship in thought and in feeling. Confide, confess, consult.

4. Face your fears. Analyze them. Daylight dismisses gloom.

5. Balance fantasy with facts. Dream, but also do;—wish, but build;—imagine, but ever face reality.

6. Beware alluring escapes. Alcohol, opiates and barbitals may prove faithless friends.

7. Exercise. Walk, swim, golf. Muscles need activity.

8. Love, but love wisely. Sex is a flame which uncontrolled may scorch; properly guided it will light the torch of eternity.

9. Do not worry. Do not let yourselves become engulfed in a whirlpool of worries. Call early for help.

10. Trust in time. Be patient and hopeful, time is a great therapist.—*Contact Point*.

■
Dramatic Radio Program

On October 28 the second in a series of real life dental dramas, sponsored by the Chicago Dental Society, was offered over Radio Station W.G.N. of Chicago and distributed over the Mutual Network.

An effort was made to increase human interest by placing the action outside the dental office, and introducing the dental moral in the final minutes of the play.

This show narrated the story of Tim Kennealy, young Chicago architect whose sudden blindness was attributed to overwork, but which was traced, through the chance examination of a dentist, to an infected non-vital tooth.

Characters in the drama were played by members of the dramatic staff of W.G.N. Miss Madelaine Chase, prominent young radio star, impersonated the distracted young wife with extreme sympathy and understanding.—*Bul. Chicago D. Soc.*

•
Gift For Dental Building

The W. K. Kellogg Foundation of Battle Creek, Michigan, has given the School of Dentistry of the University of Michigan a gift which, together with a Public Works Administration grant, will make possible a new \$430,000 dental building adjoining the present structure. The Foundation gift is for \$236,500.

The new building will be known as the W. K. Kellogg Foundation School of Children's Dentistry, Graduate and Post-Graduate Study.

•
Collection Frauds

Watch out for the wave of gyp collection agencies that offer to collect long-overdue bills for professional men. A glib representative proposes to collect all accounts receivable at easy terms to the debtors, produces "letters of satisfaction" from other clients, and may even advance a small sum against future collections. It isn't until the company has collected the cream of the accounts—and kept all the money—that a statement is sent to the client. With minimum charges, charges on bad accounts, service charges, etc., the statement shows that the client owes the company money. There's

little recourse to law because the client has signed an ambiguous contract which often is submitted for his signature merely as an "application" or "listing sheet."—*From News-WEEK—October 10. A.D.A. Press Release.*

•
Bar Learns Half of its Members Don't Make \$2,000

Nearly half the lawyers in the United States earn less than \$2,000 a year, according to a survey published yesterday by the American Bar Association. Less than 2 per cent of those in the profession have incomes of more than \$15,000 a year.

The report was prepared by a special committee of the association, headed by Lloyd K. Garrison, dean of the University of Wisconsin law school. Mitchell Dawson of Chicago was a member of the committee.

The findings indicated that a large number of lawyers are unable to earn a living in practice and that many young lawyers cannot find openings. Low cost legal service bureaus would create more work for lawyers, the committee said.—*From CHICAGO TRIBUNE—Oct. 10. A.D.A. Press Release.*

•
Medical Bureaucracy

Dr. R. G. Leland, director of the American Medical Association's Bureau of Economics, reports, as a result of a European survey, that state-managed medical systems inevitably assume the aspect of bureaucracies, with staggering administrative costs being passed on to the taxpaying public.

That is always the case when politics injects itself into the economic realm. Within the field of medicine the system is particularly objectionable, for, in a literal sense, human welfare is at stake.

Dr. Leland shows that, under government control, hospital loads are increased, over-medication is encouraged, and mortality and morbidity are not reduced.

Such revelations should serve as a warning against bureaucratic developments at Washington, where, even now, the advocates of "social progress" are urging the establishment of a costly public, health system that all too closely resembles a medical surrender to the doctrines of Karl Marx.—*Fr. Hammond, Ind. Times, August 18, 1938. (A.D.A. News Release.)*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

*"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."*

William J. Kerr, of Montreal, Quebec, died October 30. Dr. A. Douglas Angus, of Montreal, read the following memorial before the Montreal Dental Club on November 7:

"It is with deep regret that I express the loss the Montreal Dental Club has sustained in the death of one of its oldest and most valued members. Dr. W. J. Kerr was a charter member of this club, and one of the pioneers of dentistry in the city of Montreal. Many changes have taken place since the days when Dr. Kerr started in to practise dentistry, and science has made tremendous strides not only in research but also in modern equipment and technique.

"A large field developed to interest and stimulate the pioneer whose background made these advancements all the more readily assimilated and understood. Dr. Kerr's association with his confrères has followed along with the rapid development of this Club from a small group carrying on more intimate discussions into an organization which now sponsors some of the finest dental clinics in Canada.

"It is perhaps our own sense of loss that gives a deeper meaning to our sympathy for the bereaved family and I feel that I voice the sentiment of this Club when I move that a letter of condolence be sent to Dr. Kerr's immediate family expressing our deepest sympathy in their sad bereavement and also an expression of our personal sorrow in the loss of one of our most valued members."

•
•
Mark Gamble McElhinney, of Ottawa, Ontario, aged 71, was accidentally drowned on October 17 at Ottawa. He was born in Nova Scotia, coming to Ottawa in 1883 where he received his early education. He

was graduated from the Royal College of Dental Surgeons in 1891 and immediately commenced practice in the Capital City. He was a keen sportsman, a member of the Ottawa Automobile Club, indeed was its first secretary 32 years ago. He owned one of the first motor cars—a one-cylinder machine—back in 1907. He was fond of boats and boating and was a member of Ottawa Motor-Boat Club. He was fond of nature, being a member of the Naturalists Club. He was a member of Ottawa Arts and Letters Club and a past president of the Ottawa Dental Society.

Dr. McElhinney was one of Ottawa's best known citizens. At his funeral Rev. Norman David paid him this tribute, "He was a unique personality and it was a great privilege to have known him." His widow, three married daughters, one brother, Dr. George McElhinney and six grandchildren mourn his untimely passing. His son was killed overseas.

•
Robert A. Dean, of Bolton, Ontario, aged 50, died at his home on September 25.

He was graduated from the Royal College of Dental Surgeons in 1920 and immediately moved to Bolton to practise his profession. He was a highly respected resident of that village for the past 18 years and took an active interest in general activities of that centre.

Dr. Dean is survived by his widow.

•
Philip A. Eckman, of Winnipeg, Manitoba, was accidentally killed November 20 by carbon monoxide fumes, as he was cleaning his car in his garage, the large doors having been blown closed by the wind.

Dr. Eckman is survived by his widow and one son.

. . . SECTION FRANÇAISE . . .

Rédacteur.

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.,
Professeur à l'Université de Montréal
516 EST, RUE SHERBROOKE, MONTREAL

COMITE DE REDACTION

Gérard Baillargeon, D.D.S.
Paul Geoffrion, D.D.S., A.I.D.O.
P. E. Lussier, D.D.S.
P-E. Poitras, D.D.S.

Gérard de Montigny, D.D.S.
Yves Lafleur, D.D.S.
A. D. Milot, D.D.S.
Jules Tétreault, D.D.S.

REDACTEURS-CORRESPONDANTS

MARCEL DARCISSAC, M.D.,
Lauréat de l'Académie et de la Faculté de
Médecine de Paris.
Stomatologiste des Hôpitaux de Paris.
6 Avenue Marceau, Paris.

ALBERT JOACHIM, D.D.S.,
Président du Quatrième Congrès Dentaire
National Belge.
3 rue de Hornes, Bruxelles.

HENRI VILLAIN, D.D.S.,
Président de l'Association Générale Syndicale
des Dentistes de France.
45 rue de la Tour, Paris.

FRANCOIS ACKERMANN, M.D.,
Médecin-dentiste.
33 rue du Rhône, Genève.

JULES THEBAUD, D.D.S.,
Doyen de l'Ecole Dentaire
Port-au-Prince, Haïti.

Le Dentiste et sa Responsabilité Professionnelle

*Conférence du 4ème Congrès des Dentistes de langue française de l'Amérique du
Nord en Congrès à Montréal, le 3 juin 1938*

par F. PHILIPPE BRAIS, C.R.

(suite)

Ceci nous conduit à la partie probablement la plus pratique de cette conférence. Nous avons vu que, grâce à l'esprit éclairé de nos juges, les dentistes poursuivis, dans cette province du moins, se sont vus libérés dans la majeure partie des cas où ils ont jugé à propos de se défendre. Aux Etats-Unis ils n'ont pas été tout à fait aussi heureux. En France, les auteurs que nous lisons se plaignent amèrement du fait que certains juges refusent de suivre l'opinion des experts, même dans des cas qui paraîtraient clairs au point de vue médical.

Il y a deux catégories de poursuites: celles dont nous entendons parler et celles qui se règlent en silence. C'est une vérité étrange que de dire que le dentiste poursuivi, coupable d'aucune faute, souffre peut-être plus que celui qui est réellement redevable en justice. Ce dernier peut régler sa cause. Sa réputation n'en est pas plus atteinte que ses actes ne le méritent. Le praticien compétent, toutefois, à qui il arrive un accident, doit souffrir des inconvénients considérables et des fois même voir sa réputation menacée à tel point qu'il croit

perdre toute sa clientèle. Et pourtant, nous avons de nos meilleurs dentistes qui ont été poursuivis et qui, bien entendu, ont réussi pleinement dans leur défense. Ils ont, dans le procédé, toutefois, passé par des tranches qu'ils ne voudraient pas voir recommencer. J'ai vu moi-même nombre de nos praticiens les plus compétents, ayant brisé, par exemple, le maxillaire inférieur en voulant extraire une dent incluse. Ou bien, des cas d'aiguilles brisées; hémorragie à la suite d'extraction, etc., etc. J'avais une sympathie réelle pour ces clients, qui souffraient beaucoup plus que ne l'avaient jamais fait leurs patients, et qui, pour des périodes de mois, faisaient leur ouvrage mécaniquement, dans une espèce de terreur de voir révéler au grand public qu'il était arrivé quelque chose dans leurs bureaux que les clients ou amis pourraient leur attribuer comme faute personnelle.

Et remarquez bien, plus le praticien est compétent, plus l'accident lui semble désastreux. Et pourtant des accidents opératoires doivent arriver et peuvent arriver malgré toutes les précautions du dentiste le plus habile.

Que doit donc faire le dentiste si quelque chose du genre lui arrive? C'est là tout le côté pratique de cette conférence. La première chose qu'il doit faire, s'il y a là une condition qui n'est pas exclusivement de son ressort, c'est de consulter le médecin du patient. Ceci fait, et s'il est nécessaire, il est bon de faire consulter un spécialiste.

Mais il y a plus. Le dentiste devrait, dans chaque cas, lui-même accompagner le patient. Et pourquoi? C'est que le médecin, voyant arriver chez lui le patient, trouve un état que le patient explique à sa façon. S'il ne connaît pas le dentiste, et même des fois s'il le connaît, il lui échappe alors une remarque malheureuse, laquelle, on découvre presque chaque fois, fait naître l'idée de

responsabilité et de poursuite. Vous comprendrez comme moi que le cas est tout autre lorsque c'est le dentiste lui-même qui arrive chez le médecin et qui déclare à ce dernier en présence du patient que lui, le dentiste, dans les circonstances, préfère la compétence du médecin à la sienne. Il lui explique qu'au cours d'une opération il est survenu des événements, résultat imprévisible d'une intervention chirurgicale, et que, dans tout ceci, le dentiste est infortuné, mais que ce sont des choses dont il ne peut être responsable.

Le médecin est non seulement flatté de ce que le dentiste a été assez intelligent de vouloir le consulter, mais aussi il a le bénéfice immédiat d'une explication logique et rationnelle. On découvre, à la suite, que le médecin et le dentiste, comme ils doivent le faire, travaillent ensemble pour le bien du patient et qu'en définitive ce dernier est reconnaissant aux deux, et surtout à son dentiste qui n'a voulu prendre aucun risque et l'a suivi aussi attentivement.

Il se fait une réaction psychologique chez le patient bien suivi. Il apprécie lui-même le sentiment instinctif qui nous porte à nous dégager d'une situation déplaisante. L'assistance attentive sert donc à le désarmer à plus d'un point de vue.

C'est étrange à dire, mais je n'ai connu qu'un seul cas où un patient convenablement suivi par son dentiste ait jamais songé à poursuivre après un accident.

C'est le docteur F. Bonnet-Roy, aussi professeur à l'école dentaire et médecin expert auprès des tribunaux de Paris, qui résume bien cette situation en disant:

"Je ne reviendrai pas sur le conseil de GERARD-MAUREL de ne laisser jamais passer un incident ou accident sans le dire au malade. J'ajouterai, en insistant franchement: 'Prenez toujours contact avec le

médecin du malade quand une complication se produit, car c'est là, neuf fois sur dix, que gît le drame psychologique qui est l'origine des poursuites intentées à l'égard des praticiens'. C'est sur l'intervention du médecin, en votre absence, souvent à votre insu, même si celui-ci n'a laissé échapper aucune parole imprudente, que le malade ou son entourage considéreront votre responsabilité comme engagée."

En conséquence, suivez votre patient. Ne craignez pas de l'encourager, de lui expliquer exactement comment un accident de ce genre peut arriver, afin qu'il puisse comprendre dès le début que c'est hors votre contrôle. Il souffrira de se voir dans une position pénible, mais s'il vous a à côté de lui pour l'encourager il finira par avoir autant de sympathie pour vous que de regret pour lui-même. Vous n'entendrez jamais parler de poursuite.

Mais jamais, au grand jamais, ne laissez partir un patient pour qu'il aille se plaindre et trouver secours ailleurs. C'est parce qu'avant qu'il se décide à aller chercher un médecin ou un dentiste, il aura souffert à un tel point que même votre intervention alors pourrait devenir presque inutile.

Nous avons vu au début de cette conférence que l'action contre un dentiste ne se prescrit qu'après 30 ans. C'est la période la plus longue reconnue par la loi. Je me permettrai tout d'abord de suggérer à votre Association de considérer l'opportunité de faire un amendement à la loi afin de vous relever de ce fardeau réel. Il faudrait modifier le Code Civil, ou ce qui sera plus simple et peut-être plus facile, ajouter une clause à votre statut corporatif. Vous pouvez demander peut-être pourquoi on n'y a pas pensé avant. C'est que le besoin ne fait que commencer à se faire sentir. Aujourd'hui, dans notre popula-

tion comme ailleurs, le recours en dommages est devenu beaucoup plus fréquent. Avec les lois industrielles, loi des accidents du travail, les accidents d'automobiles, etc., il n'y a pas une famille qui de près ou de loin n'a pas eu un litige en Cour. Le peuple, au lieu d'avoir peur des tribunaux a compris maintenant qu'il y est bien accueilli et y fait souvent une bonne transaction. On a découvert non seulement en Europe et aux Etats-Unis, mais aussi même au Canada, des groupes d'individus qui se liguèrent ensemble pour simuler un accident. Avec des médecins malhonnêtes, on simulait les blessures. Un automobiliste innocent était appelé à payer.

Nous avons constaté qu'il y a un certain nombre de dentistes, malheureusement beaucoup plus considérable qu'ils ne veulent l'admettre, qui ne tiennent aucune fiche de certaines opérations. Un étranger se présente, par exemple, pour une extraction. Il paye et s'en va. Dans bien des cas on n'en garde aucun record.

Voyez-vous dans quelle position se trouverait un tel dentiste qui serait poursuivi cinq ou dix ans plus tard, accusé d'avoir provoqué une infection donnant suite à des conséquences dommageables?

Vous me dites que c'est peu probable. Mais les racoleurs d'accidents que nous avons eus à Montréal ont inventé de toutes pièces des situations beaucoup plus difficiles à concevoir. Il ne faudrait qu'un racoleur un peu habile, prenant des informations ici et là chez des mécaniciens, un employé mécontent, etc., pour se trouver une liste de noms et, dans cette liste, trouver le complice nécessaire pour une série d'actions où le médecin se verrait obligé de payer, car il n'aurait aucun fait qui lui permettrait de nier une déclaration assermentée.

Il y a non seulement les actions malhonnêtes qu'il faut rencontrer et qui sont d'autant plus difficiles à défendre que le

laps de temps est plus long, mais il y a aussi les demandes 'bona fide'.

Un médecin qui avait opéré à Valleyfield une enfant afin de lui insérer une esquille dans les apophyses pour corriger une déviation de l'épine dorsale, se vit poursuivi 4 ans après. Il apprenait là pour la première fois qu'il avait tranché trop près de la moelle épinière, que l'os n'avait pas résisté à la tension et que l'enfant était paralysée.

Un dentiste du Carré Philipps a été poursuivi trois ans après avoir opéré une dame hébraïque, qui est partie à la suite pour les pays des mines et est revenue à Montréal pour se plaindre que ce dont elle souffrait depuis ce temps-là était dû à l'infection qu'elle lui attribuait.

C'est dans des cas semblables que les fiches du dentiste deviennent d'une importance capitale. Chaque opération quelque minime qu'elle soit, devrait être inscrite. De cette façon le dentiste et son assistant ou assistante ont quelque chose devant eux qui leur permet de rafraîchir la mémoire et préciser le cas. Autrement, il arrive souvent que s'ils peuvent se souvenir du facies de l'individu, ils ne peuvent même pas dire quel traitement il a reçu, et la fiche devient doublement importante lorsqu'on peut anticiper du trouble. Dans ces cas là, après avoir donné tous les soins nécessaires, avoir vu le médecin, etc., préparez un détail élaboré et minutieux—faites-le constater et initialer par vos assistants, gardes, et encore mieux, préparez-le en collaboration. Si vous en avez jamais besoin, le record sera précieux.

A chaque agent d'assurance qui place une police, nous demandons de donner ce conseil à son client dentiste, ceci non seulement pour la protection de l'assureur, mais encore plus pour l'assuré. Nous voyons, d'ailleurs, que dans une conférence récente du docteur Bonnet-Roy, de Paris, il nous donne encore raison sur ce point, lorsqu'il dit:

"A un autre point de vue, tout à fait pratique et qui corrobore ce que disait tout à l'heure Me. Peytel, tenez en toutes circonstances, tenez toujours une fiche, une observation extrêmement précise. Ce n'est pas le spécialiste qui vous donne ce conseil, c'est l'expert, car c'est uniquement comme expert que je me permets de parler.

Lorsque, nous experts, nous avons à apprécier après plusieurs années des phénomènes cliniques, comment voulez-vous que nous formulions un jugement impartial, désintéressé—car il n'est pas question naturellement pour les experts de donner systématiquement raison ou tort au médecin ou au malade—comment voulez-vous que nous puissions donner des renseignements de valeur au Tribunal si le praticien ne nous apporte pas une observation cohérente, suivie au jour le jour? Je me suis trouvé dans ces circonstances plusieurs fois. Un praticien est difficile à défendre lorsque aux arguments de la famille ou du malade, il ne peut pas opposer une observation prise au jour le jour; c'est indispensable et c'est l'élément principal de la défense du praticien poursuivi par un malade récalcitrant."

Il reste un dernier point à considérer, c'est la police d'assurance. Je crois qu'il est opportun de corriger certaines erreurs très répandues relativement à votre contrat d'assurance.

La police que vous recevez stipule que l'assureur s'engage envers le dentiste qui est son assuré:

"à indemniser l'assuré de tous dommages-intérêts jusqu'à concurrence des limites stipulées dans la police, résultant de la responsabilité à lui imposée par la loi à raison des

blessures corporelles, y compris la mort qui pourrait en résulter, en tout temps, subies durant le cours de la police en conséquence d'un acte fautif, d'une erreur professionnelle ou d'une faute soit de l'assuré, soit de tout assistant, sauf son partenaire."

Regardons bien cette formule. La compagnie d'assurance ne s'engage pas à payer les dommages que vous pouvez occasionner à un patient. Elle s'engage à vous indemniser au cas où ce patient, pouvant prouver que vous êtes en faute, d'après les principes déjà établis, serait en mesure d'obtenir un jugement contre vous vous condamnant à une indemnité quelconque. C'est tout comme la police que vous prenez pour vous assurer contre les dommages que vous pouvez causer aux autres en vous servant de votre automobile. Pour que l'assureur soit appelé à payer, il faut que le blessé soit en mesure d'établir que vous êtes en faute. Si vous avez des passagers dans votre machine et qu'un autre char vienne vous frapper et tue vos amis, votre assureur n'a aucun intérêt dans le litige sauf pour vous défendre, s'il est prouvé que l'accident est dû à la faute de l'autre.

Mais, ce qui arrive trop souvent, et ce qui provoque des litiges pénibles pour le dentiste même, c'est qu'à la suite d'une avarie survenue dans son bureau, le praticien dit à son patient immédiatement "ne vous occupez de rien. Je suis assuré. Votre médecin va être payé. Votre temps perdu vous sera remboursé et vous aurez une indemnité". Non seulement une admission de ce genre pourra annuler la police si l'assureur veut en bénéficier, mais encore, et la chose est facile à comprendre, elle crée chez la victime un appétit qu'elle n'aurait jamais pensé à avoir autrement. Le dentiste a cru, de bonne foi, que cette police d'indemnité était là pour servir de gratuité à un patient qui, en l'absence

de toute faute de sa part a, nonobstant, souffert dans son bureau. Et ce qui est plus regrettable, c'est que cette protection que le dentiste croyait avoir sert, au contraire, uniquement à activer un litige qui a pour effet d'affecter la réputation du praticien.

Nous avons déjà vu que le patient qui veut se faire rembourser par le dentiste doit prouver faute lourde de la part de ce dernier. Ceci élimine nécessairement une multitude d'incidents qu'on pourrait appeler communément des accidents de la pratique. L'assureur, en établissant la prime qu'il vous charge pour votre police, prend en considération que ce n'est que dans les cas très rares (car il ne donnera pas ce contrat à un médecin incompetent) que ce n'est, je le répète, que dans les cas très rares que le dentiste pourrait être tenu en loi à payer une indemnité. Autrement, la prime devrait être huit à dix fois ce qu'on vous charge.

Il n'y a donc pas de reproche à faire à l'assureur s'il refuse de faire un cadeau à toute personne qui passe chez vous et pour qui vous avez de la sympathie.

Mais, le patient, à qui vous avez révélé ce mot magique de police d'assurance, ne voudra plus entendre parler de principe d'indemnité. Il sait que vous êtes assuré. Il croit comme vous qu'il y a là un montant d'argent à sa disposition pour qu'il puisse y puiser à sa guise. Il verra son avocat et inévitablement vous serez poursuivi. Je vous assure que dans de telles circonstances, vous préféreriez bien n'avoir jamais eu de police plutôt que de vous voir, par votre seule déclaration, poursuivi devant les tribunaux.

Comprenons-nous bien. Je ne veux pas laisser entendre par ceci que la police d'assurance n'est pas utile. Bien au contraire. Elle est indispensable et aucun praticien quelconque qui peut trouver à s'assurer ne devrait s'en dispenser. Mais, ce que je veux signaler,

c'est que dans les cas de médecins, de chirurgiens et de dentistes, plus que de tout autre, il est indispensable que vous ne révéliez pas au patient le fait que vous avez la protection d'une compagnie d'assurance. Non seulement de cette façon vous mettez de côté toute la sympathie naturelle que le client (qui vous estime s'il va chez vous pour se faire traiter) a naturellement pour vous, mais encore plus, vous lui donnez l'idée erronée qu'il a droit à une compensation et qu'il n'a qu'à transiger directement avec l'assureur.

Mais, si pour votre propre protection vous ne devez pas révéler au patient la présence d'un assureur, il est par contre très important d'avertir immédiatement ce dernier s'il est survenu quelque chose chez vous. D'ailleurs, il est prévu comme au contrat qu'un avis soit donné immédiatement. Je ne puis trop insister sur ce point, et ceci exclusivement pour la protection du dentiste.

Voici ce qui arrive, et ceci s'applique surtout au jeune praticien. Il a voulu extraire une dent et un chicot demeure dans la gencive, où il a du trouble avec une dent incluse. Le patient part. Le dentiste a fait son possible. Il a pris toutes les précautions au monde, mais il n'a pas réussi son opération. Il n'y a toutefois pas de faute de sa part.

Ou bien, un patient appelle deux ou trois jours après une opération pour se plaindre d'une infection tenace.

Avertissez immédiatement votre assureur. Ne vous contentez pas d'appeler l'agent pour lui expliquer la chose à votre façon et l'entendre dire, peut-être, que ce n'est pas important et de lui dire qu'il survient quelque chose. Communiquez immédiatement avec votre compagnie, par téléphone et par écrit. Vous aurez la satisfaction de recevoir sans délai la visite d'un enquêteur expérimenté qui connaît ces situations et qui vous relèvera immédiatement de toute

anxiété. Vous aurez le bénéfice de son expérience et il vous dira ce que vous devez faire pour vous protéger contre une poursuite. Et, ce qu'il y a de plus important, c'est que le cas ne pourra s'aggraver. Si on vient à la conclusion que de fait il y a erreur de votre part qui constitue une faute professionnelle, la cause sera vite réglée sans esclandre, sans tapage, et sans atteinte à votre réputation professionnelle.

Si par contre le cas en est un où vous devez à vous-même et à votre assureur de ne pas payer, le patient sera visité d'une façon convenable par un expert de réputation qui aura vite fait non seulement d'aviser mais aussi d'avoir fait comprendre à tous les intéressés qu'une réclamation sans fondement ne pourrait avancer personne.

Il peut arriver chez les dentistes comme il arrive chez les automobilistes des incidents qui paraissent tellement insignifiants qu'on ne croit même pas qu'ils puissent avoir une suite sérieuse. On croit que la bonne nature suivra son cours. Ne vous fiez pas à ceci, et ne croyez pas que l'assureur sera plus critiqué pour renouveler le contrat simplement parce que vous avez donné au cours de l'année certains rapports de deux ou trois incidents où vous pourriez anticiper du trouble avec un patient hargneux.

Donnez votre avis en toute franchise, et je puis vous assurer que votre status avec votre assureur n'en sera que meilleur. Il est prévu à votre contrat que l'absence d'avis annule immédiatement la police. Je n'ai donc pas besoin d'insister davantage sur le point.

Puisque nous avons abordé le côté pratique, il serait peut-être bon, en terminant, d'ajouter que la police d'assurance n'assure pas vos assistants et partenaires. Vous payez une prime supplémentaire pour vous protéger vous-même contre la responsabilité qui vous

résulte comme patron ou comme partenaire, des actes de ceux que vous avez dans votre bureau, mais notez bien que cette surprime ne sert pas à protéger votre partenaire et vos employés, qui ne se trouvent pas assurés, à moins d'une convention spéciale. Il est arrivé plusieurs cas où l'associé se croyait assuré par la police parce que son nom y était mentionné.

Que les intéressés vérifient ce point immédiatement pour qu'il n'y ait pas de déception lorsqu'il sera trop tard.

En terminant nous pouvons donc nous résumer sur le tout en disant que le dentiste doit être tenu responsable de sa faute professionnelle dans les limites que nous avons discutées, et que cette responsabilité pèse sur lui pour 30 ans après l'acte qui a fait naître les dommages.

Il doit à lui-même et à son client de suivre ce dernier attentivement chaque fois qu'il arrive un accident. S'il est assuré il doit comprendre que sa police ne l'indemnise qu'au cas où il y a faute de sa part, et que pour sa propre protection l'assureur doit être notifié immédiatement.

Si j'ai bien pu faire comprendre ce dernier point, je crois que cette conférence aura eu son utilité dans la tranquillité d'esprit que peut se procurer un praticien à qui un accident malencontreux a pu survenir.

Je vous remercie de votre bonne attention et j'espère que vous ne serez pas de ceux avec qui il faudra discuter professionnellement un incident ou un accident de votre pratique.

Extrait du rapport présenté au IX^{ème} Congrès Dentaire International de la F.D.I. Vienne, 2 au 8 août 1936

par le docteur JULES THEBAUD, doyen de l'Ecole Dentaire de Port-au-Prince, Haiti.

Hygiène Dentaire scolaire dans la République d'Haiti.

Ce n'est pas sans difficultés que l'auteur a établi un service d'hygiène dentaire scolaire en Haiti. Il s'agit d'un pays à ressources très limitées; il y a aussi à considérer des habitudes séculaires auxquelles se heurtent toutes innovations.

En dépit de ces difficultés, qui sembleraient insurmontables, on n'a rien eu à regretter; et l'expérience si chèrement acquise peut servir d'exemple dans les Antilles.

Cette oeuvre fait partie intégrante de l'Ecole de chirurgie dentaire de la Faculté de médecine qui l'a organisée et qui l'administre directement. C'est ce qui a permis:

1o De former un personnel bien préparé et bien entraîné; car les étudiants, non seulement suivent un cours de dentisterie préventive, mais assistent les dentistes-inspecteurs dans leurs tournées.

2o De faire fonctionner un dispensaire moderne presque exclusivement affecté au traitement des écoliers nécessiteux.

3o D'être en rapports réguliers avec les services similaires d'outre-mer et de centraliser des statistiques.

Organisé en juillet 1929, il a débuté par une enquête dans les différentes écoles. Depuis, il fonctionne régulièrement sur le plan suivant: 3 dispensaires fixes fonctionnent aux points extrêmes du territoire et 1 dispensaire à la Capitale. La liaison est établie entre ces divers points par deux cliniques ambulantes.

Le dentiste accomplit son travail d'assainissement dentaire de deux façons: d'abord, en inspectant minutieusement la bouche de l'écolier quelqu'il soit; ensuite, en s'occupant des traitements quand il s'agit d'enfants pauvres.

Cette inspection obligatoire permet de dresser la fiche de l'école.

Grâce à cette fiche, l'Oeuvre dentaire peut classer l'établissement au point de vue des soins d'urgence à accorder, du pourcentage de la carie, de la malocclusion, etc.

Les établissements catalogués dans la série A sont en conformité avec les desirata de l'Oeuvre, et sont en voie d'assainissement progressif. Ceux de la série B. sont l'objet d'une attention spéciale, ils sont visités plus souvent en raison du mauvais état des bouches et de la condition sociale des enfants.

En Haïti, le pourcentage de la carie est relativement élevé (80%), par contre celui de la malocclusion est plutôt bas (15%) comparativement avec les taux d'Europe et d'Amérique.

Le non-usage de la brosse à dents est le péché capital de l'écolier haïtien; il s'élève à peu près à 70% dans les villes et à 98% dans les campagnes. Il est bon de signaler ici que la brosse à dents est remplacée dans les campagnes par le "bois-dent". Le "bois-dent" qu'emploient les indigènes est un portion de la tige d'un arbrisseau (la tichou-china longifolia), famille des mélastomacées; l'une des extrémités est mordillée jusqu'à dissociation des fibres en forme de balai.

SERVICE RURAL

La partie rurale du service est la plus ardue, en raison des difficultés de communication, du manque de coopération de la part des familles et des instituteurs; mais en retour, de beaucoup la plus intéressante à tous les points de vue; car la population rurale entre pour une proportion considérable dans la population totale d'Haïti. Plusieurs des plus petites îles sont peuplées en majorité d'ouvriers, de journaliers et ont une population presque exclusivement rurale.

Association des Chirurgiens-Dentistes des Trois-Rivières

SOUS la présidence du docteur Auguste Massicotte, l'Association des Chirurgiens-Dentistes des Trois-Rivières maintenait sa tradition de consacrer une de ses assemblées régulières de l'année à une réunion sociale, où tous les confrères de la province de Québec et leurs épouses étaient invités à se rencontrer, le 10 septembre 1938.

Cette séance dénuée du caractère sérieux et austère des réunions scientifiques, eut comme début une réception offerte par le docteur Frédéric Houde des Trois-Rivières à ses confrères et leurs épouses. La fête se continua dans le cadre enchanteur de la ville de Louiseville par un banquet suivi d'un concert et d'une sauterie, où un groupe imposant de cent-

cinquante personnes occupait les salons joliment décorés du Château Louise.

A l'issue du banquet, le docteur Massicotte, avec un tact et une finesse toute spontanée présenta à l'assistance quelques orateurs qui surent exprimer avec bonheur les divers sentiments ressentis par chacun des convives. Le docteur Houde, dans un style poétique et fleuri, dit son admiration pour l'Association des Dentistes des Trois-Rivières et son respect à l'égard de son ancien copain d'Université, le professeur Théophile Côté.

Le docteur Georges Pelletier, délégué du Collège des Chirurgiens-Dentistes de la province de Québec félicite l'Association pour l'initiative heureuse qu'elle a eue d'organiser cette fête et fait l'éloge

de son président, le docteur Auguste Massicotte.

Le docteur Ephrem Vinet, président de l'Association des Dentistes de langue française de l'Amérique du Nord louange les docteurs Houde et Massicotte et convie les membres de la profession dentaire à assister au prochain congrès, qui aura lieu à Montréal les 8, 9, 10 juin 1939.

Le docteur Euclide Malo, en sa qualité de président, apporte aux dentistes trifluviens les salutations de la Société Dentaire de Montréal, il formule des vœux pour la formation d'une Fédération des Sociétés Dentaires de la province de Québec.

Le docteur Manseau, échevin de la ville de Nicolet, prend la parole pour remercier et féliciter l'Association du succès remporté par la réunion de ce soir.

Le docteur Théophile Côté est l'orateur suivant et il loue l'hospitalité des dentistes de la région des Trois-Rivières, leur cordialité et leur esprit de corps, il invite les Sociétés de Québec, de Montréal, de Sherbrooke et de St-Hyacinthe à répéter le geste de l'Association des Trois-Rivières.

Le docteur Eugène Blouin, président de la Société de Stomatologie de Québec souhaite ensuite à l'Association des Trois-Rivières le succès dans le domaine des idées et de l'action pratique; il réitère ses sentiments d'admiration et de reconnaissance pour l'organisation de la présente fête.

Le docteur Adolphe L'Archevêque félicite les dentistes des Trois-Rivières d'intéresser les dames à leurs activités et aussi d'assister en délégation aussi nombreuse et représentative aux grands congrès de l'Association des Dentistes de langue française de l'Amérique du Nord; il rappelle que le docteur Houde à ses heures, fut un écrivain et un acteur de marque.

Le docteur J. F. Perrault est le

dernier orateur de la soirée, il déplore la non-existence d'un sous-département d'hygiène dentaire dans la province de Québec; il fait appel aux dames pour que leur influence de mères de famille et de gardiennes de la santé des générations futures agisse auprès du gouvernement provincial afin qu'il établisse chez nous une organisation identique à celles qui existent dans toutes les autres provinces du Dominion. Il rappelle le travail d'éducation dentaire de la population du Québec entrepris, il y a quelques années, sous la direction du docteur Joseph Nolin et il remercie la profession dentaire du district des Trois-Rivières de sa sympathie et de son encouragement à cette campagne.

Il suggère que la réunion présente ait son écho dans les journaux pour que la population canadienne-française se rende compte de l'effort tenté par les dentistes en vue de l'amélioration de l'état de sa bouche et de ses dents.

Le docteur Auguste Massicotte lève la séance en remerciant tous ceux qui de près ou de loin ont contribué au succès de la réunion; il propose qu'une demande officielle soit adressée au gouvernement provincial pour la création d'un sous-département d'hygiène dentaire; il suggère, en outre, qu'on précède sans plus tarder à la fondation d'une Fédération des Sociétés Dentaires de la Province de Québec et fixe une date pour la réunion des délégués de chaque société locale.

Il termine en formulant des vœux pour que le futur président du Collège des Chirurgiens-Dentistes de la province de Québec soit choisi parmi les dentistes de la région des Trois-Rivières.

Des télégrammes et des lettres de regrets de ne pouvoir assister à la fête furent reçus de MM. les docteurs McAbe, Armitage, Forest, Dubeau, Archambault, Marcoux, Landry, Bélair, Bloomfield, Bourdon, Beaulieu, Lamarche, Casgrain et autres.

Gérard de Montigny.

Revue des Revues

par GERARD de MONTIGNY, B.A., D.D.S., M.S.D.

Le Traitement et la Stérilisation de la Dentine Vivante au Moyen des Huiles Essentielles par J. Mudie Pétrie, L.D.S., Glasgow.

Les médicaments employés pour la stérilisation de la dentine avariée mais vivante doivent être assez volatils pour pénétrer les tissus durs de la dent en laissant indemnes la pulpe et les fibrilles dentinaires.

Les huiles essentielles sont reconnues depuis toujours comme des substances antiseptiques, germicides et antipurulentes; mais des recherches récentes ont découvert la plus grande activité des huiles essentielles quand elles sont mêlées les unes aux autres et la stérilisation plus ou moins parfaite qu'elles procurent, selon qu'elles sont liquides ou vaporisées. Il apparaît de plus que l'action bactéricide de ces huiles est proportionnée à leur facilité plus ou moins grande de solution dans l'alcool.

Après avoir passé en revue les principales huiles employées dans le domaine dentaire et leur valeur bactéricide respective, l'auteur préconise l'emploi de certains mélanges de ces huiles selon que la cavité est petite ou grande, selon que la pulpe est dans une condition physiologique ou pathologique.

Dans le cas d'une petite cavité, la solution suivante est mise en contact plusieurs

fois avec la dentine, après avoir asséché celle-ci au moyen d'alcool et d'air chaud:

huile de menthe	60 parties
huile de citron	12 parties
huile d'eucalyptus	18 parties
huile "wintergreen"	14 parties
huile "aniseed"	6 parties

(solution de 1 p.c. dans l'alcool à 90 p.c.)

Pour une cavité profonde et où des îlots de caries ne peuvent être enlevés, on applique le mélange d'huiles suivantes:

huile de citron	36 min.
thymol	36 grs.
huile de clou	24 min.
huile de cassia	24 min.

Avant l'application de cette solution sur la dentine avariée, on badigeonne celle-ci au moyen d'huile de citronnelle concentrée—cette huile est très antiseptique, sédative et moins forte que l'eugénol.

On place une boulette de coton saturée de la solution dans la cavité qu'on ferme sans pression par un ciment temporaire.

On laisse en place durant 24 heures. On répète l'opération si le patient éprouve quelque inconfort douloureux.

Pour les traitements de canaux, l'auteur recommande l'usage de "Ti-Trol", comme antiseptique et antipurulent; cette huile ne produit pas d'irritation à la région apicale des dents comme le tricrésol.—(*Oral Health*, juillet 1938).

Nécrologie

Au cours du mois dernier sont décédés les docteurs Wilfrid Monette de St-Jean et J. A. Jutras de Montréal.

Aux familles des défunts, nous offrons nos plus sincères sympathies.

This journal must be
returned to the Dental
Library by:

27 Oct '39

April 30

May 2.

May 9

Mar 30

April 30

Dec 6.

FEB 14 1966

RK
1
C37
v.

Canadian Dental Association
Journal

on Journal 369221

NAME OF BORROWER

